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INSTRUMENT APPROACH PROCEDURE CHARTS

A IFR ALTERNATE AIRPORT MINIMUMS

Standard alternate minimums for non precision approaches are 800-2 (NDB, VOR, LOC, TACAN, LDA, VORTAC, VOR/DME, ASR or WAAS LNAV); for precision approaches 600-2 (ILS or PAR). Airports within this geographical area that require alternate minimums other than standard or alternate minimums with restrictions are listed below. NA - means alternate minimums are not authorized due to unmonitored facility or absence of weather reporting service. Civil pilots see FAR 91. IFR Alternate Airport Minimums: Ceiling and Visibility Minimums not applicable to USA/USN/USAF. Pilots must review the IFR Alternate Airport Minimums Notes for alternate airfield suitability.

NAME ALTERNATE MINIMUMS

ALBANY, OR

ALBANY MUNI ..... **VOR/DME or GPS-A**
NA except for operators with approved weather reporting service.

ARLINGTON, WA

ARLINGTON MUNI ..... **NDB or GPS Rwy 34**
Category D, 800-2½.
NA when Paine Field control tower closed.

ASTORIA, OR

ASTORIA RGNL ..... **RNAV (GPS) Rwy 26[1,2]**
VOR Rwy 8[3]
[1]NA when local weather not available.
[2]Categories A, B, 900-2; Category C, 900-2¾; Category D, 900-3.
[3]Category C, 800-2¼; Category D, 900-3.

AURORA, OR

AURORA STATE ..... **LOC Rwy 17[1]**
RNAV (GPS) Rwy 17[2,3]
RNAV (GPS) Rwy 35[2]
[1]Category D, 800-2¼.
[2]NA when local weather not available.
[3]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.

BAKER, MT

BAKER MUNI ..... **NDB Rwy 13[1]**
NDB Rwy 31[2]
[1]Categories A,B, 1100-2; Categories C,D, 1100-3.
[2]Categories A,B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.

BAKER CITY, OR

BAKER CITY MUNI ..... **RNAV (GPS) Rwy 13[1,2]**
VOR-A[1,3]
VOR/DME Rwy 13[2,4]
[1]NA when local weather not available.
[2]Category D, 900-2¾.
[3]Categories A,B, 1900-2; Categories C,D, 1900-3.
[4]NA when control zone not in effect.

NAME ALTERNATE MINIMUMS

BELLINGHAM, WA

BELLINGHAM INTL ..... **ILS or LOC Rwy 16**
RNAV (GPS) Rwy 16
NA when local weather not available.

BIG PINEY, WY

MILEY MEMORIAL FIELD ..... **VOR Rwy 31**
Category D, 800-2¼.

BILLINGS, MT

BILLINGS LOGAN INTL ..... **NDB Rwy 10L[1]**
RNAV (GPS) Rwy 10L[2]
RNAV (GPS) Rwy 28R[3]
[1]Category D, 800-2¼.
[2]Categories A,B,C,D, 800-2¼.
[3]Categories A,B, 900-2; Categories C,D, 900-3.

BOISE, ID

BOISE AIR TERMINAL(GOWEN FIELD) ..... **LOC BC Rwy 28L**
RNAV (GPS) Y Rwy 10R
RNAV (GPS) Y Rwy 28L
VOR/DME or TACAN Rwy 10L
VOR/DME or TACAN Rwy 28L
Category E, 1000-3.

BOZEMAN, MT

GALLATIN FIELD ..... **VOR Rwy 12**
Category C, 800-2¼; Category D, 800-2½.

BREMERTON, WA

BREMERTON NATIONAL .. **RNAV (GPS) Rwy 1**
RNAV (GPS) Rwy 19[1]
NA when local weather not available.
[1]Categories A,B, 1200-2; Categories C,D, 1200-3.

BUFFALO, WY

JOHNSON COUNTY ..... **RNAV (GPS) Rwy 31[1]**
VOR/DME Rwy 31[2]
NA when local weather not available.
[1]Category D, 800-2¼.

NAME ALTERNATE MINIMUMS

BURLEY, ID

BURLEY MUNI ..... **VOR-A**
VOR/DME-B
NA when local weather not received.

BURLINGTON/MOUNT VERNON, WA

SKAGIT RGNL ..... **NDB Rwy 10**[1]
RNAV (GPS) Rwy 10
RNAV (GPS) Rwy 28
NA when local weather not available.
[1]Categories A,B, 1300-2; Categories C,D, 1300-3.

BURNS, OR

BURNS MUNI ..... **VOR Rwy 30**
Categories A, B, 1400-2; Categories C,D, 1400-3.

BUTTE, MT

BERT MOONEY ..... **ILS Y Rwy 15**[1]
LOC/DME Rwy 15[2]
RNAV (GPS) Y Rwy 15[3]
RNAV (GPS) Z Rwy 15,1200-2
VOR or GPS-B,1400-3
VOR/DME or GPS-A,3000-3
[1]Categories A, B, C, 1200-4.
[2]Categories A,B, 1300-2; Categories C,D, 1300-3.
[3]Categories A,B, 1500-2; Categories C,D, 1500-3.

CALDWELL, ID

CALDWELL
INDUSTRIAL ..... **RNAV (GPS) Rwy 12**
RNAV (GPS) Rwy 30
NA when local weather not available.

CASPER, WY

CASPER/NATRONA
COUNTY INTL ..... **ILS or LOC Rwy 3**
ILS, Categories A,B, 800-2; Category C 800-2½; Category D, 800-2¾; Category E, 900-3.
LOC, Category C, 800-2½; Category D, 800-2¾; Category E, 900-3.

CHEYENNE, WY

CHEYENNE RGNL/JERRY OLSON
FIELD ..... **ILS or LOC Rwy 27**[1]
NDB Rwy 27[1]
RNAV (GPS) Rwy 9[2]
RNAV (GPS) Rwy 13[2]
RNAV (GPS) Rwy 31[2]
[1]NA when control tower closed.
[2]NA when local weather not available.

NAME ALTERNATE MINIMUMS

CODY, WY

YELLOWSTONE
REGIONAL ..... **RNAV (GPS) Rwy 22**[1]
VOR or GPS-A[2]
[1]Category C, 800-2¼; Category D, 200-2¾.
[2]Category D, 900-3.

COEUR D'ALENE, ID

COEUR D'ALENE-PAPPY
BOYINGTON FIELD .... **ILS or LOC/DME Rwy 5**
NDB Rwy 5
RNAV (GPS) Rwy 5
VOR Rwy 5
VOR/DME Rwy 1
NA when local weather not available.

CORVALLIS, OR

CORVALLIS MUNI ..... **VOR-A**
Categories A,B,1200-2; Categories C,D, 1200-3.

DEER PARK, WA

DEER PARK ..... **RNAV (GPS) Rwy 34**
NA when local weather not available.

DILLON, MT

DILLON ..... **VOR or GPS-A,**1500-3
VOR/DME or GPS-B
NA when Dillon altimeter setting not available.

DOUGLAS, WY

CONVERSE COUNTY ..... **VOR Rwy 29**
Categories A,B, 1100-2; Categories C,D, 1100-3. DME standard.

EASTSOUND, WA

ORCAS ISLAND ..... **RNAV (GPS)-A**
Categories A, B, 1100-2.
NA when local weather not available.

ELLENSBURG, WA

BOWERS FIELD ..... **RNAV (GPS) Rwy 25**[1]
RNAV (GPS) Rwy 29
VOR-B[2]
NA when local weather not available.
[1]Category D, 800-2¼.
[2]Category A, 1500-2.

EPHRATA, WA

EPHRATA MUNI ..... **RNAV (GPS) Rwy 3**[1]
RNAV (GPS) Rwy 21[2]
VOR/DME Rwy 3[1]
VOR Rwy 21[1]
NA when local weather not available.
[1]Category D, 1300-3.
[2]Category C, 800-2¼; Category D, 1300-3.

NAME ALTERNATE MINIMUMS

EUGENE, OR

MAHLON-SWEET FIELD ..... **ILS or LOC/DME Z Rwy 16R[1]**
ILS or LOC Y Rwy 16R[1]
ILS or LOC/DME Rwy 16L[12]
RNAV (GPS) Rwy 34R[2]
VOR or GPS-A[3]

[1]NA when control tower closed.
[2]NA when local weather not available.
[3]Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.

EVANSTON, WY

EVANSTON-UINTA COUNTY BURNS FIELD ..... **ILS or LOC/DME Rwy 23**
Categories C,D, 700-2.

EVERETT, WA

SNOHOMISH COUNTY(PAINE FIELD) ..... **ILS or LOC/DME Rwy 16R**
NA when control tower closed.
NA when local weather not available.

FORT BENTON, MT

FORT BENTON ..... **RNAV (GPS) Rwy 23**
NA when local weather not available.

GILLETTE, WY

GILLETTE-CAMPBELL COUNTY ..... **ILS or LOC Rwy 34[12]**
RNAV (GPS) Rwy 16[3]
RNAV (GPS) Rwy 34[4]
VOR/DME Rwy 16[5]
VOR/DME Rwy 34[1]

[1]Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3.
[2]NA when control tower closed.
[3]Categories A,B,C, 800-2¼; Category D, 1000-3.
[4]Categories A,B,C,D, 1200-4.
[5]Category C, 800-2¼; Category D, 1000-3.

GLASGOW, MT

WOKAL FIELD/ GLASGOW INTL ..... **VOR Rwy 12**
Categories A,B, 900-2; Categories C,D, 900-3.
VOR/DME standard.

GLENDIVE, MT

DAWSON COMMUNITY ..... **NDB or GPS Rwy 12,**900-2¾

GOODING, ID

GOODING MUNI ..... **RNAV (GPS) Rwy 7**
RNAV (GPS) Rwy 25
NA when local weather not available.

NAME ALTERNATE MINIMUMS

GRAY AAF (KGRF)

FORT LEWIS, WA ..... **NDB Rwy 15**
NDB Rwy 33
ILS or LOC Rwy 15
COPTER NDB Rwy 15
NA when control tower closed.

GREAT FALLS, MT

GREAT FALLS INTL ..... **NDB Rwy 34**
Category D, 800-2¼.

GREYBULL, WY

SOUTH BIG HORN COUNTY .... **RNAV (GPS)-A**
RNAV (GPS) Rwy 33[1]
NA when local weather not available.
[1]Category D, 1200-3.

HAILEY, ID

FRIEDMAN MEMORIAL ..... **RNAV (GPS) W Rwy 31**
Categories A,B, 1900-2; Category C, 1900-3.

HAVRE, MT

HAVRE CITY-COUNTY ..... **VOR Rwy 26**
Categories A, B, 900-2; Category C, 900-2¾; Category D, 900-3.

HELENA, MT

HELENA RGNL ..... **ILS or LOC Y Rwy 27[12]**
ILS or LOC Z Rwy 27[12]
LOC/DME BC-C[13]
NDB-D[14]
RNAV (GPS) Y Rwy 9[5]
RNAV (GPS) Rwy 23[6]
RNAV (GPS) X Rwy 27[5]
RNAV (RNP) Z Rwy 9[7]
RNAV (RNP) Y Rwy 27[7]
RNAV (RNP) Z Rwy 27[79]
VOR-A[8]
VOR/DME-B[6]

[1]NA when control tower closed.
[2]Categories A, B, 1600-2; Categories C, D, E, 1600-3.
[3]Categories A, B, 1300-2; Categories C, D, 1300-3.
[4]Category A, 1200-2.
[5]Categories A, B, 1600-2; Categories C, D, 1600-3.
[6]Categories A, B, 900-2; Category C, 900-2¾; Category D, 900-3.
[7]NA when local weather not available.
[8]Categories A, B, 2900-2; Categories C, D, 2900-3.
[9]1000-4.

NAME ALTERNATE MINIMUMS

HOQUIAM, WA

BOWERMAN ..... **RNAV (GPS) Rwy 24**[1]
VOR/DME Rwy 24[2]
VOR Rwy 6[1]

[1]Category D, 800-2¼.
[2]Categories A,B, 900-2; Category C, 900-2¾; Category D, 900-3.

IDAHO FALLS, ID

IDAHO FALLS RGNL ..... **ILS or LOC Rwy 20**[1]
LOC BC Rwy 2[2]
RNAV (GPS) Rwy 20[3]
VOR Rwy 20[3]

[1]ILS, Category E, 700-2½. LOC, Category E, 800-2½.
[2]Category E, 800-2½.
[3]NA when local weather not available.

JACKSON, WY

JACKSON HOLE ..... **RNAV (GPS) X Rwy 1**[1]
RNAV (GPS) Y Rwy 19[1]
RNAV (RNP) Y Rwy 1, 10681200-4
VOR/DME Rwy 1[2]
VOR/DME Rwy 19[3]

[1]Categories A,B, 1200-2; Categories C,D, 1200-3.
[2]Categories A,B,1000-2; Categories C,D, 1000-3.
[3]Categories A,B,1400-2; Categories C,D, 1400-3.

JEROME, ID

JEROME COUNTY ..... **RNAV (GPS) Rwy 9**
RNAV (GPS) Rwy 27[1]
VOR/DME-A

NA when local weather not available.
[1]Categories A, B, 1300-2; Categories C, D, 1300-3.

JOHN DAY, OR

GRANT COUNTY RGNL/
OGILVIE FIELD ..... **RNAV (GPS) Y Rwy 9**
Category B, 900-2; Category C, 900-2½.

KALISPELL, MT

GLACIER PARK INTL ..... **ILS or LOC Rwy 2**[1]
RNAV (RNP) Y Rwy 2[2]
RNAV (RNP) Rwy 20, 800-2½[2]

[1]Categories C, D, 700-2.
[2]NA when local weather not available.

KELSO, WA

SOUTHWEST
WASHINGTON RGNL ..... **RNAV (GPS) Rwy 12**
Categories A, B, 900-2.

NAME ALTERNATE MINIMUMS

KLAMATH FALLS, OR

KLAMATH FALLS ..... **ILS or LOC Rwy 32**[1]
RNAV (GPS) Rwy 14[2]
VOR/DME or TACAN Rwy 14[3]
VOR/DME or TACAN Rwy 32[4]
VOR or GPS-B,2100-3

[1]Categories A,B, 900-2; Category C, 900-2¾; Category D, 1000-3. LOC, DME required.
[2]Categories A,B, 900-2; Category C, 900-2¾; Category D, 1000-3.
[3]Categories C,D, 1000-3; Category E, NA.
[4]Category B, 900-2; Categories C,D, 1000-3; Category E, 1500-3.

LAKEVIEW, OR

LAKE COUNTY ..... **VOR/DME-A**
Categories A,B, 900-2; Category C, 900-2½; Category D, 900-2¾.

LEWISTON, ID

LEWISTON-NEZ PERCE
COUNTY ..... **ILS Rwy 26**[1,2]
RNAV (GPS) Y Rwy 8[3]
RNAV (GPS) Y Rwy 12[3]
RNAV (GPS) Y Rwy 26[3]
RNAV (RNP) Rwy 30[4]
RNAV (RNP) Z Rwy 8[4]
RNAV (RNP) Z Rwy 12[4]
RNAV (RNP) Z Rwy 26[4]
VOR Rwy 8[5]
VOR Rwy 26[3]

[1]ILS, Category D, 800-2¼.
[2]NA when control tower closed.
[3]Category D, 800-2¼.
[4]NA when local weather not available.
[5]Categories A, B, 1100-2; Categories C, D, 1100-3.

LEWISTOWN, MT

LEWISTOWN MUNI ..... **RNAV (GPS) Rwy 7**
VOR Rwy 7

Category D, 800-2¼.

LIVINGSTON, MT

MISSION FIELD ..... **VOR/DME-B**[1]
VOR-A[2]

[1]Categories A, B, 900-2; Category C, 900-2½; Category D, 1000-3.
[2]Categories A, B, 2200-2; Categories C,D, 2200-3.

NAME ALTERNATE MINIMUMS

MC CALL, ID

MC CALL MUNI ..... **RNAV (GPS) Rwy 16[1]**
RNAV (GPS) Y Rwy 34[2]
RNAV (GPS) Z Rwy 34[34]

[1]Category C, 900-2½.
[2]Categories A, B, 1600-2; Categories C, D, 1600-3.
[3]NA when local weather not available.
[4]Category C, 900-2½; Category D, 1000-3.

MC MINNVILE, OR

MC MINNVILLE MUNI ..... **ILS or LOC Rwy 22**
RNAV (GPS) Rwy 4
RNAV (GPS) Rwy 22
VOR/DME-B

NA when local weather not available.
Category D 800-2¼.

MEDFORD, OR

ROGUE VALLEY INTL-
MEDFORD ..... **ILS or LOC/DME Rwy 14[12]**
LOC/DME BC-B[23]
RNAV (GPS)-D[3]
RNAV (GPS) Rwy 14[4]
VOR-A[5]
VOR/DME-C[3]
VOR/DME Rwy 14[5]

[1]ILS, Categories A, B, C, 700-2; Category D, 900-2½. LOC, Category D, 900-2½.
[2]NA when control tower closed.
[3]Categories A, B, 2300-2; Categories C, D, 2300-3.
[4]Categories A, B, 1100-2; Categories C, D, 1100-3.
[5]Categories A, B, 1400-2;Category C, D 1400-3.

MISSOULA, MT

MISSOULA INTL ..... **ILS Rwy 11[1]**
RNAV (GPS) Y Rwy 11[23]
RNAV (RNP) Z Rwy 11[2],800-2½
VOR/DME or GPS-A,2000-3
VOR/DME or GPS-B,2000-3

[1]ILS, 1600-6. LOC,NA.
[2]NA when local weather not available.
[3]Categories A, B, 1900-2; Categories C, D, 1900-3.

NAME ALTERNATE MINIMUMS

MOSES LAKE, WA

GRANT COUNTY INTL ... **ILS or LOC Rwy 32R[1]**
NDB Rwy 32R[2]
RNAV (GPS) Rwy 4[1]
RNAV (GPS) Rwy 14L[1]
RNAV (GPS) Rwy 22[1]
VOR Rwy 4[2]
VOR -1 Rwy 14L[2]
VOR -3 Rwy 14L[2]
VOR Rwy 22[2]
VOR Rwy 32R[2]

[1]NA when local weather not available.
[2]NA when control tower closed.

NEWCASTLE, WY

MONDELL FIELD ..... **VOR or GPS Rwy 31**

NA except for operators with approved weather reporting service.
Categories A,B, 900-2;Categories C,D, 900-3.

NORTH BEND, OR

SOUTHWEST OREGON
RGNL ..... **ILS or LOC Rwy 4[1]**
NDB or GPS Rwy 4[2]
VOR or GPS-A[3]
VOR/DME or GPS-B[4]
VOR/DME Rwy 4[4]

[1]ILS,Categories A,B, 800-2; Category C, 900-2¼, Category D,1000-3. LOC, Category C, 900-2¼, Category D,1000-3.
[2]Category C, 900-2¼;Category D, 1000-3.
[3]Categories A,B, 1100-2; Categories C,D, 1100-3.
[4]Categories C,D, 1000-3.

OAK HARBOR, WA

AJ EISENBERG ..... **RNAV (GPS) Rwy 7**

NA when local weather not available.

OLYMPIA, WA

OLYMPIA RGNL ..... **ILS or LOC Rwy 17[123]**
RNAV (GPS) Rwy 17[2]
RNAV (GPS) Rwy 35[2]
VOR-A[24]
VOR/DME Rwy 35[2]

[1]ILS, Categories C, D, 700-2.
[2]NA when local weather not available.
[3]NA when control tower closed.
[4]Category D, 800-2¼.

ONTARIO, OR

ONTARIO MUNI ..... **RNAV (GPS) Rwy 14**
RNAV (GPS) Rwy 32

NA when local weather not available.

NAME ALTERNATE MINIMUMS

PASCO, WA

TRI-CITIES ..... **ILS or LOC Rwy 21R[1,2]**
RNAV (GPS) Rwy 3L
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 21R
RNAV (GPS) Rwy 30
VOR Rwy 21R[3]
VOR/DME Rwy 30

NA when local weather not available.
[1]NA when control tower closed.
[2]ILS, Categories A,B,C, 700-2; Category D, 700-2¼. LOC, Category D, 800-2¼.
[3]Category D, 800-2¼.

PENDLETON, OR

EASTERN OREGON RGNL AT
PENDLETON ..... **ILS or LOC/DME Rwy 25[1]**
RNAV (GPS) Rwy 7
RNAV (GPS) Rwy 11
RNAV (GPS) Rwy 25
RNAV (GPS) Rwy 29
VOR Rwy 7

NA when local weather not available.
[1]ILS, NA when control tower closed.

PINEDALE, WY

PINEDALE/RALPH WENZ
FIELD ..... **NDB-A[1]**
RNAV (GPS) Rwy 11[2]
RNAV (GPS) Rwy 29[2]

NA when local weather not available.
[1]Category C, 800-2¼; Category D, 800-2½.
[2]Category D, 800-2½.

POCATELLO, ID

POCATELLO RGNL ..... **ILS or LOC Rwy 21[1]**
RNAV (GPS) Rwy 3[2]
RNAV (GPS) Rwy 21[2]

[1]NA when control zone not in effect.
[2]NA when local weather not available.

PORT ANGELES, WA

WILLIAM R
FAIRCHILD INTL ..... **ILS or LOC Rwy 8**
RNAV (GPS) Rwy 8[1]
RNAV (GPS) Rwy 26

NA when local weather not available.
[1]Categories A, B, 1000-2; Categories C, D, 1000-3.

NAME ALTERNATE MINIMUMS

PORTLAND, OR

PORTLAND INTL ..... **ILS or LOC Rwy 10L[1]**
ILS or LOC Rwy 10R[2]
ILS or LOC Rwy 28L[3]
ILS or LOC Rwy 28R[4]
LOC/DME Rwy 21[5]
RNAV (GPS) Rwy 10L[5]
RNAV (GPS) Rwy 10R[6]
RNAV (GPS) Rwy 12[7]
RNAV (GPS) Rwy 28L[8]
RNAV (GPS) Rwy 28R[8]
VOR/DME Rwy 21[5]
VOR-A [9]
VOR Rwy 28R[5]

[1]ILS, Category A, 700-2; Categories B,C, 800-2; Category D, 1000-3. LOC, Category D, 1000-3.
[2]Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3; Category E, 1100-3.
[3]ILS, Category A, 700-2; Categories B,C, 800-2; Category D, 1000-3; Category E, 1100-3. LOC, Category D, 1000-3; Category E, 1100-3.
[4]ILS, Category A, 700-2; Categories B,C, 800-2; Category D, 1000-3.
LOC, Category D, 1000-3.
[5]Category D, 1000-3.
[6]Categories A,B,C 800-5; Category D, 1000-5.
[7]NA when local weather not available.
[8]Category D, 1000-3.
[9]Categories A,B, 900-2; Category C, 900-2½; Category D, 1000-3.

PORTLAND-HILLSBORO .. **ILS or LOC Rwy 12[1]**
RNAV (GPS) Rwy 12
RNAV (GPS) Rwy 30

NA when local weather not available.
[1]Categories A, B, 1500-2; Categories C, D, 1500-3.

PORTLAND-TROUTDALE ..... **NDB or GPS-A**
Categories A,B, 1100-2; Category C, 1100-3; Category D, 1300-3.

PULLMAN/MOSCOW, WA

PULLMAN/MOSCOW
MUNI ..... **RNAV (GPS) Rwy 5,**800-2¼

RAWLINS, WY

RAWLINS MUNI/
HARVEY FIELD ..... **RNAV (GPS) Rwy 22[1]**
VOR/DME Rwy 22[2]

[1]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[2]Categories A, B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.

NAME ALTERNATE MINIMUMS

REDMOND, OR

ROBERTS FIELD ..... **ILS or LOC Rwy 22[1]**
VOR/DME Rwy 22[2]

[1]ILS,LOC,Category D,800-2¼; Category E, 800-2½.
[2]Category A, B, 1000-2; Category C, 1000-2¾; Category D, E, 1000-3.

RENTON, WA

RENTON MUNI ..... **NDB Rwy 16[1]**
RNAV (GPS) Y Rwy 16[2]
RNAV (GPS) Z Rwy 16[3]

NA when local weather not available.
[1]Categories A, B, 1000-2; Categories C, D, 1000-3.
[2]Categories A, B, 900-2; Category C, 900-2¾; Category D, 900-3.
[3]Categories A, B, 900-2.

REXBURG, ID

REXBURG-MADISON COUNTY ..... **RNAV (GPS) Rwy 35**

NA when local weather not available.
Category D, 800-2½.

RICHLAND, WA

RICHLAND ..... **NDB Rwy 19[1]**
RNAV (GPS) Rwy 19[1]
RNAV (GPS) Rwy 26[1]
VOR/DME-A[2]
VOR Rwy 26[1]

[1]Category D, 800-2½.
[2]Categories A,B, 900-2; Category C, 900-2¾; Category D, 900-3.

RIVERTON, WY

RIVERTON RGNL ..... **ILS or LOC Rwy 28**
RNAV (GPS) Rwy 10
RNAV (GPS) Rwy 28
VOR Rwy 10
VOR Rwy 28

NA when local weather not available.

ROSEBURG, OR

ROSEBURG RGNL ..... **RNAV (GPS)-B**

NA when local weather not available.
Categories A, B, 1200-2; Category C, 1200-3; Category D, 1400-3.

SALEM, OR

MCNARY FIELD ..... **ILS or LOC Rwy 31[12]**
LOC/DME Rwy 31[3]
RNAV (GPS) Rwy 31[13]

[1]NA when local weather not available.
[2]ILS, Categories A, B, 800-2; Category C, 800-2¼; Category D, 800-2½. LOC, Category C, 800-2¼; Category D, 800-2½.
[3]Category D, 800-2½.

NAME ALTERNATE MINIMUMS

SCAPPOOSE, OR

SCAPPOOSE INDUSTRIAL AIRPARK ..... **VOR/DME or GPS-A**

Category B, 900-2; Category C, 1000-2¾; Category D 1300-3.

SEATTLE, WA

BOEING FIELD-KING COUNTY INTL ..... **ILS Rwy 13R[1]**
ILS Rwy 31L[2]
LOC/DME Rwy 13R[3]
RNAV (GPS) Y Rwy 13R[4]
RNAV (RNP) Z Rwy 13R[5]

[1]ILS, Category A, 800-2; Category B, 900-2; Category C, 900-2½; Category D, 1000-3.
[2]Category A, 800-2; Category B, 900-2; Category C, 900-2½; Category D, 1000-3.
[3]Category B, 900-2; Category C, 900-2½; Category D, 1000-3.
[4]Category B, 900-2; Category C, 900-2¾; Category D, 1000-3.
[5]Categories A, B, C, D, 800-2¼.

SHERIDAN, WY

SHERIDAN COUNTY ..... **ILS or LOC/DME Rwy 32**
RNAV (GPS) Rwy 14
RNAV (GPS) Rwy 32
VOR Rwy 14

NA when local weather not received.
Category D, 800-2¼.

SIDNEY, MT

SIDNEY-RICHLAND MUNI ..... **NDB Rwy 1[1]**
NDB Rwy 19[2]
RNAV (GPS) Rwy 1[3]
RNAV (GPS) Rwy 19[3]

NA when local weather not available.
[1]Categories A, B, 900-2; Category C, 900-2½; Category D, 900-2¾.
[2]Categories A, B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.
[3]Category D, 800-2¼.

NAME ALTERNATE MINIMUMS

SPOKANE, WA

FELTS FIELD ..... **ILS/DME Rwy 21R[1]**
RNAV (GPS)-A[2]
RNAV (GPS) Rwy 3L[2]
VOR Rwy 3L[34]

[1]Categories A,B, 1000-2;Category C, 1000-2¾.
[2]Categories A,B, 1000-2; Category C, 1000-2¾; Category D, 1000-3.
[3]Categories A, B, 1000-2; Categories C, D, 1000-3.
[4]NA when local weather not available.

SPOKANE INTL ..... **ILS or LOC Rwy 3[1]**
ILS or LOC/DME Rwy 21[1]
RNAV (GPS) Rwy 3[2]
VOR Rwy 3[3]

[1]ILS, Category D, 700-2.
[2]Category D, 800-2¼.
[3]Category E, 800-2½.

TACOMA, WA

TACOMA NARROWS ..... **ILS Rwy 17[1]**
NDB Rwy 35[1]
RNAV (GPS) Rwy 17[12]
RNAV (GPS) Rwy 35[23]

[1]NA when control tower closed.
[2]Category D, 800-2¼.
[3]NA when local weather not available.

THE DALLES, OR

COLUMBIA GEORGE RGNL/
THE DALLES MUNI ..... **RNAV (GPS)-A**
Categories A,B, 1100-2; Category C, 1100-3; Category D, 1200-3.

TWIN FALLS, ID

JOSLIN FIELD-MAGIC VALLEY
RGNL ..... **ILS or LOC Rwy 25[1]**
NDB Rwy 25
RNAV (GPS) Rwy 7
RNAV (GPS) Rwy 25
VOR Rwy 7[2]

NA when local weather not available.
[1]ILS, Category D, 700-2; Category E, 900-3. LOC, Category E, 900-3.
[2]Category C, 800-2¼; Category D, 800-2½.

NAME ALTERNATE MINIMUMS

WALLA WALLA, WA

WALLA WALLA RGNL ..... **ILS or LOC Rwy 20[1]**
NDB Rwy 20, 1000-3
RNAV (GPS) Rwy 2[23]
RNAV (GPS) Rwy 16[2]
RNAV (GPS) Rwy 20[2]
VOR/DME Rwy 2[2]

[1]ILS,LOC, Categories A,B, 1100-2; Categories C, D, 1100-3.
[2]Category D, 800-2½.
[3]NA when local weather not available.

WENATCHEE, WA

PANGBORN
MEMORIAL ..... **ILS Y Rwy 12,** 1300-4
VOR/DME-C[12]
VOR/DME-A[3]

[1]NA when local weather not available.
[2]Categories A, B, 1500-2; Categories C, D, 1500-3.
[3]Categories A, B, 2000-2; Categories C, D, 2000-3.

WOLF POINT, MT

L.M. CLAYTON ..... **RNAV (GPS) Rwy 11**
RNAV (GPS) Rwy 29

NA when local weather not available.

WORLAND, WY

WORLAND MUNI ..... **VOR or GPS Rwy 16**
Categories C,D, 800-2½.

YAKIMA, WA

YAKIMA AIR TERMINAL/
MCALLISTER FIELD ..... **ILS Y Rwy 27[12]**
ILS Z Rwy 27[13]
LOC/DME BC-B[14]
RNAV (GPS) Y Rwy 27[5]
RNAV (GPS) Z Rwy 27[4]
VOR/DME or TACAN Rwy 27[6]
VOR-A[7]

[1]NA when control tower closed.
[2]ILS, Categories A, B, 600-2¼; Category C, 700-2¼; Category D, 800-2¼.
[3]Category C, 700-2; Category D, 800-2¼
[4]Category D, 800-2¼.
[5]Category C, 800-2½; Category D, 800-2¾.
[6]Categories A, B, 1100-2; Categories C, D, 1100-3.
[7]Category C, 800-2¼; Category D, 800-2½.

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKE-OFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstacles during the climb to the minimum enroute altitude , and/or airports that have civil IFR take-off minimums other than standard, are listed below. Take-off Minimums and Departure Procedures apply to all runways unless otherwise specified. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below in text, or published separately as a graphic procedure. If the (Obstacle) DP is published as a graphic procedure, its name will be listed below, and it can be found in either this volume (civil), or a separate Departure Procedure volume (military), as appropriate. Users will recognize graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). If not assigned a SID or radar vector by ATC, an ODP may be flown without ATC clearance to ensure obstacle clearance.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are referred to as "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appropriate airport section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard take-off rules and establishes take-off minimums for certain operators as follows: (1) Aircraft having two engines or less - one statute mile. (2) Aircraft having more than two engines - one-half statute mile. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) take-off minima are published below. For military take-off minima, refer to appropriate service directives.

NAME TAKE-OFF MINIMUMS

AFTON, WY

AFTON MUNI

DEPARTURE PROCEDURE: **Rwy 16,** Use LUNDI DEPARTURE. **Rwy 34,** use AFTON DEPARTURE.

ALBANY, OR

ALBANY MUNI

DEPARTURE PROCEDURE: **Rwy 16,** turn right. **Rwy 34**, turn left. **All aircraft** climb direct CVO VOR/DME and continue climb in CVO VOR/DME holding pattern, (E, right turns, 261° inbound) to cross CVO VOR/DME at or above 3000.

ANACONDA, MT

BOWMAN FIELD

TAKE-OFF MINIMUMS: **Rwy 4,** std. w/ min. climb of 417' per NM to 9000, or 2800-3 for climb in visual conditions. **Rwy 17,** std. w/ min. climb of 321' per NM to 10200, or 2800-3 for climb in visual conditions. **Rwy 22,** NA-obstacles. **Rwy 35,** std. w/ min. climb of 369' per NM to 9100, or 2800-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 4, 35,** climbing right turn to 10200 via heading 130° and CPN VOR/DME R-340 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound), or for climb in visual conditions, cross Bowman Field Airport at or above 7700 then proceed via CPN R-309 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound).

NAME TAKE-OFF MINIMUMS

BOWMAN FIELD(CON'T)

Rwy 17, climbing left turn to 10200 via heading 100° and CPN VOR/DME R-335 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound), or for climb in visual conditions, cross Bowman Field Airport at or above 7700 then proceed via CPN R-309 to CPN VOR/DME, continue climb-in-hold to 10200 (north, left turn, 166° inbound).

NOTE: **Rwy 17,** multiple trees beginning 865' from departure end of runway, 243' left of centerline, up to 70' AGL/5097' MSL. Rod on hangar 570' from departure end of runway, 278' left of centerline, 54' AGL/5054' MSL. Multiple trees beginning 787' from departure end of runway, 165' right of centerline, up to 70' AGL/5098' MSL. Multiple transmission lines beginning 4602' from departure end of runway, 1664' right of centerline, 80' AGL/5159' MSL. **Rwy 35,** multiple transmission lines beginning 2242' from departure end of runway, 964' left of centerline, up to 80' AGL/5159' MSL.

ARCO, ID

ARCO-BUTTE COUNTY (AOC)

AMDT 1 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 6,** NA - Obstacles.

DEPARTURE PROCEDURE: Use JATTS DEPARTURE.

ARLINGTON, WA

ARLINGTON MUNI

TAKE-OFF MINIMUMS: **Rwy 11,** 600-2 or std. with a min. climb of 350' per NM to 700. **Rwy 34,** 500-2 or std. with a min. climb of 260' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 11,** turn right. **Rwy 16**, climb direct to WATON LOM. **Rwys 29,34**, turn left. **All aircraft** climb direct to WATON LOM. Aircraft departing WATON LOM on bearings 150° CW 200° and bearings 260° CW 340° from WATON LOM continue climb on course. Aircraft departing WATON LOM on bearings 340° CW 150° from WATON LOM climb in holding pattern (S, left turns, 339° inbound) to 4500 then continue climb on course. Aircraft departing WATON LOM on bearings 200° CW 260° from WATON LOM climb in holding pattern (S, left turns, 339° inbound) to 1500 then continue climb on course.

ASTORIA, OR

ASTORIA RGNL

TAKE-OFF MINIMUMS: **Rwy 8**, 800-3 or std. with a min. climb of 320' per NM to 900. **Rwy 13**, 700-2 or std. with a min. climb of 350' per NM to 800.

DEPARTURE PROCEDURE: **Rwys 8,31,** turn left. **Rwy 13**, climb runway heading to 800 then climbing right turn. **Rwy 26**, turn right. Aircraft departing northwestbound climb via AST R-290 on course. **All other aircraft** climb to 1500 or above via AST R-290 then left turn to AST VOR/DME and continue climbing on course.

AUBURN, WA

AUBURN MUNI

DEPARTURE PROCEDURE: Use AUBURN DEPARTURE.

AURORA, OR

AURORA STATE

DEPARTURE PROCEDURE: **Rwy 17**, turn right, thence... **Rwy 35**, turn left, thence...
...Aircraft proceeding via V23 climb on course; All others climb in UBG VOR/DME holding pattern (hold south, left turn, 003° inbound) to cross UBG VOR/DME at or above MEA/MCA for direction of flight.

NOTE: **Rwy 17,** multiple trees 31' from departure end of runway, 273' right of centerline, up to 90' AGL/270' MSL. Multiple trees beginning 979' from departure end of runway, 247' right of centerline up to 113' AGL/316' MSL. Road 254' from departure end of runway, 350' left of centerline, 16' AGL/209' MSL. **Rwy 35,** multiple trees and road beginning 31' from departure end of runway, 163' left of centerline, up to 138' AGL/329' MSL. Multiple trees beginning 973' from departure end of runway, 281' right of centerline, up to 58' AGL/253' MSL.

BAKER, MT

BAKER MUNI

NOTE: **Rwy 13,** 51' derrick 2200' from departure end of runway on centerline. 100' trees south of airport, near runway, various locations. **Rwy 31,** 146' antenna on tower 4000' from departure end of runway, 1800' left of centerline. 114' rod on OL antenna 3800' from departure end of runway on centerline.

BAKER CITY ,OR

BAKER CITY MUNI

TAKE-OFF MINIMUMS: **Rwy 8**, 900-2 or std. with a min. climb of 315' per NM to 6000, (788' per min. at 150K, 1050' per min. at 200K, 1313' per min. at 250K). **Rwy 13**, 1400-2 or std. with a min. climb of 310' per NM to 6000 (775' per min. at 150K, 1033' per min. at 200K, 1292' per min. at 250K). **Rwy 17**, NA. **Rwy 31**, 1300-2 or std. with a min. climb of 240' per NM to 6000 (600' per min. at 150K, 800' per min. at 200K, 1000' per min. at 250K). **Rwy 35**, CAT C,D 1000-2; or std. with a min. climb of 240' per NM to 6000 (600' per min. at 150K, 800' per min. at 200K, 1000' per min. at 250K).

DEPARTURE PROCEDURE: **Rwys 8,13**, turn left. **Rwys 26,31,35,** turn right. **All aircraft** climb direct BKE VOR/DME. Continue climb in BKE holding pattern (SE, right turns, 298° inbound) to cross BKE VOR/DME at or above MCA or MEA for route of flight.

BELLINGHAM, WA

BELLINGHAM INTL

DEPARTURE PROCEDURE: **Rwy 16,** climb heading 160° to 600, then climbing right turn direct HUH VORTAC. Do not exceed 210 KIAS until established northbound. **Rwy 34,** climb heading 340° to 600, then climbing left turn to intercept HUH R-145 to HUH VORTAC, continue climb in holding pattern (northwest, right turn, 149° inbound) to MEA as appropriate for direction of flight.

NOTE: **Rwy 16,** lighted windsock 9' from departure end of runway, 259' right of centerline, 16' AGL/181' MSL. Multiple trees beginning 747' from departure end of runway, 405' right of centerline, up to 68' AGL/213' MSL. Multiple trees beginning 1128' from departure end of runway, 57' left of centerline, up to 104' AGL/249' MSL. **Rwy 34,** lighted windsock 93' from departure end of runway, 516' right of centerline, 27' AGL/169' MSL. multiple trees beginning 1372' from departure end of runway, 619' right of centerline, up to 134' AGL/246' MSL.

BEND, OR

BEND MUNI (BDN)
AMDT 4 09183 (FAA)

DEPARTURE PROCEDURE: Use BEND DEPARTURE.

BIG PINEY, WY

MILEY MEMORIAL FIELD

TAKE-OFF MINIMUMS: **Rwys 8,26,** NA.

DEPARTURE PROCEDURE: **Rwy 13,** climb to 8400 via BPI R-124. **Rwy 31,** climb to 10800 via BPI R-320 thence all aircraft climb on course.

BILLINGS, MT

BILLINGS LOGAN INTL (BIL)
AMDT 5 08101 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10R,** NA- Obstacles.

DEPARTURE PROCEDURE: **Rwy 10L,** Climb heading 098° to 4600 before turning right.

NOTE: **Rwy 10L,** fence 466' from departure end of runway, 535' right of centerline, 11' AGL/3511' MSL, cars on road, beginning from 624' from departure end of runway, 427' right of centerline, 15' AGL/3523' MSL, ground beginning 21' from departure end of runway, 499' right of centerline, 0' AGL/3505' MSL. **Rwy 25,** airport security fence, abeam departure end of runway, 500' left of centerline, 11' AGL/3672' MSL to 1200' from departure end of runway, abeam rwy centerline, 11' AGL/3672' MSL.

BLACKFOOT, ID

MCCARLEY FIELD

DEPARTURE PROCEDURE: **Rwy 1,** climb to 7000 (or higher assigned altitude) direct IDA VOR/DME, before proceeding on course. **Rwy 19,** climb to 7000 (or higher assigned altitude) direct PIH VORTAC, before proceeding on course.

BOISE, ID

BOISE AIR TERMINAL / GOWEN FIELD (BOI)
AMDT 6 10042 (FAA)

DEPARTURE PROCEDURE: Use GOWEN DEPARTURE.

BOZEMAN,MT

GALLATIN FIELD (BZN)
AMDT 3 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwys 3, 21**, NA-ATC.

DEPARTURE PROCEDURE: **Rwys 12, 30,** use BOZEMAN DEPARTURE.

BREMERTON,WA

BREMERTON NATIONAL (PWT)
AMDT 3 08045 (FAA)

TAKE-OFF MINIMUMS: **Rwy 1,** 300-1 or std. w/ min. climb of 410' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 1,** Climbing right turn to 6000 direct CAN NDB, Thence...**Rwy 19,** Climb to 6000 direct CAN NDB, thence...

...Continue climb-in-hold (S, LT, 013° inbound) to 6000 before proceeding on course.

NOTES: **Rwy 1,** Multiple bushes 380' from departure end of runway, 522' left of centerline, up to 17' AGL/456' MSL, multiple trees and poles beginning 1210' from departure end of runway, 622' left of centerline, up to 100' AGL/561' MSL, multiple trees and bushes 1012' from departure end of runway, 708' right of centerline, up to 100' AGL/495' MSL. **Rwy 19,** Multiple trees beginning 176' from departure end of runway, 337' left of centerline, up to 100' AGL/514' MSL, multiple trees beginning 371' from departure end of runway, 277' right of centerline, up to 100' AGL/548' MSL.

BUFFALO,WY

JOHNSON COUNTY

TAKE-OFF MINIMUMS: Northbound aircraft: **Rwys 13,31,** 2400-2 or std. with a min. climb of 300' per NM to 7500. Southbound aircraft: **Rwy 31**, 400-2 or std. with a min climb of 300' per NM to 6000.

DEPARTURE PROCEDURE: Northbound aircraft: **Rwy 13**, turn left. **Rwy 31,** climb straight ahead. **All aircraft** proceed via SHR R-139 to SHR VORTAC. Southbound aircraft: **Rwy 13,** climb straight ahead. **Rwy 31,** turn right. **All aircraft** proceed via CZI R-319 to CZI VOR/DME.

BURLEY, ID

BURLEY MUNI (BYI)
AMDT 5 10042 (FAA)

TAKE-OFF MINIMUMS: **Rwy 24,** 300-1½ or std. w/ min. climb of 428' per NM to 4500.

DEPARTURE PROCEDURE: **Rwy 2,** climbing left turn direct BYI VOR/DME, continue climb in BYI VOR/DME holding pattern (hold Northwest right turns, 125° inbound) to cross BYI VOR/DME at or above MEA for route of flight. **Rwy 6,** climbing left turn direct BYI VOR/DME, continue climb in BYI VOR/DME holding pattern (hold Northwest right turns, 125° inbound) to cross BYI VOR/DME at or above MEA for route of flight. **Rwy 20,** climbing right turn direct BYI VOR/DME, continue climb in BYI VOR/DME holding pattern (hold Northwest right turns, 125° inbound) to cross BYI VOR/DME at or above MEA for route of flight. **Rwy 24,** climbing right turn direct BYI VOR/DME, continue climb in BYI VOR/DME holding pattern (hold Northwest right turns, 125° inbound) to cross BYI VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 2,** obstruction light on bridge 252' from DER, 513' left of centerline, 57' AGL/4195' MSL. Trees beginning 686' from DER, 201' right of centerline, up to 35' AGL/4184' MSL. Tree 694' from DER, 375' left of centerline, 29' AGL/4178' MSL. Obstruction light on building 736' from DER, 188' left of centerline, 11' AGL/4161' MSL. Tower 803' from DER, 590' left of centerline, 55' AGL/4204' MSL. Vehicles on road beginning 857' from DER, 1' right of centerline, up to 17' AGL/4168' MSL. Poles beginning 1226' from DER, 549' left of centerline, up to 72' AGL/4222' MSL. Building vent 1240' from DER, 164' left of centerline, 27' AGL/4177' MSL. Stack 2206' from DER, 856' right of centerline, 86' AGL/4236' MSL. Stack 2573' from DER, 614' left of centerline, 86' AGL/4236' MSL. Elevators beginning 3980' from DER, 131' right of centerline, up to 133' AGL/4283' MSL. **Rwy 6,** trees beginning 46' from DER, 172' right of centerline, up to 14' AGL/4163' MSL. Rising terrain beginning 49' from DER, 326' right of centerline, up to 4149' MSL. Bush 150' from DER, 103' right of centerline, 5' AGL/4147' MSL. Antenna 586' from DER, 398' left of centerline, 15' AGL/4165' MSL. Obstruction light on bridge 1061' from DER, 80' right of centerline, 39' AGL/4179' MSL.

BURLEY MUNI (BYI) (CON'T)

Rwy 20, obstruction light pole 42' from DER, 124' left of centerline,16' AGL/4170' MSL. Railroad beginning 65' from DER, 4' left of centerline, up to 23' AGL/4177' MSL. Sign 181' from DER, 121' right of centerline, 18' AGL/ 4172' MSL. Vehicles on road 162' from DER, 2' left of centerline, 17'AGL/4169' MSL. Vehicles on road beginning 335' from DER 348' right of centerline up to 17' AGL/4171' MSL. Pole 446' from DER, 210' right of centerline, 26' AGL/4180' MSL. Antenna 523' from DER, 337' right of centerline, 63' AGL/4217' MSL. Tree 586' from DER, 213' right of centerline, 28' AGL/4182' MSL. Trees beginning 2014' from DER, 339' left of centerline, up to 96' AGL/4251' MSL.

Rwy 24, vehicles on road beginning 25' from DER, 9' left of centerline, up to 15' AGL/4169' MSL. Fence 58' from DER, 8' left of centerline, 4' AGL/4154' MSL. Rising terrain beginning 69' from DER, 201' right of centerline, up to 4154' MSL. Railroad 152' from DER, 6' left of centerline, 23' AGL/4176' MSL. Trees beginning 427' from DER, 101' right of centerline, up to 69' AGL/4223' MSL. Vehicles on road beginning 509' from DER, 586' right of centerline, up to 15' AGL/4169' MSL. Railroad beginning 568' from DER, 288' right of centerline, up to 23' AGL/4177' MSL. Pole 735' from DER, 185' left of centerline, 18' AGL/4172' MSL. Light standard 824' from DER, 58' right of centerline, 23' AGL/4177' MSL. Antenna 1630' from DER, 112' left of centerline, 58' AGL/4212' MSL. Tower 2766' from DER, 175' left of centerline,123' AGL/4282' MSL. Tower 3570' from DER, 158' right of centerline, 157' AGL/4312' MSL. Obstruction light on elevators beginning 3115' from DER, 164' left of centerline, up to 184' AGL/4344' MSL.

BURLINGTON/MOUNT VERNON, WA

SKAGIT RGNL (BVS)
ORIG-A 08297 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4,** 3000-2 or std. with a min. climb of 340' per NM to 3600. **Rwy 10**, 1700-2 or std. with a min. climb of 245' per NM to 2300. **Rwy 22**, 1300-2 or std. with a min. climb of 210' per NM to 1800.

DEPARTURE PROCEDURE: **Rwys 4,10,22**, turn right heading 280°. **Rwy 28**, climb runway heading.

All aircraft climb to 2500 then turn right direct BVS NDB to cross BVS at or above 4500. Aircraft departing on BVS R-145 CW R-330 climb on course. All others continue climbing in BVS holding pattern (NW, right turns 113° inbound) to cross BVS at or above 6800 before proceeding on course.

NOTE: **Rwy 4,** tree 2581' from departure end of runway, 426' left of centerline, 100' AGL/212' MSL. Light pole 1489' from departure end of runway, 136' left of centerline 35' AGL/137' MSL. Bush 126' from departure end of runway, 430' right of centerline, 20' AGL/101' MSL. Building 2925' from departure end of runway, 130' left of centerline, 60' AGL/180' MSL.

BURNS, OR

BURNS MUNI

DEPARTURE PROCEDURE: **Rwy 3,** climbing right turn, thence... **Rwy 12**, climb to 4600 via heading 117°, thence... **Rwys 21, 30,** climbing left turn, thence... ...All aircraft departing on ILR R-072 CW R-209, climb on course. All others climb on ILR R-123 within 10 NM to cross ILR VOR/DME at or above 5000.

NOTE: **Rwy 21,** pole 820' from departure end of runway, 357' left of centerline, 20' AGL/4169' MSL.

BUTTE, MT

BERT MOONEY

TAKE-OFF MINIMUMS: **Rwy 11**, NA-obstacles. **Rwy 15,** std. w/ min. climb of 601' per NM to 7300, or 3300-3 for climb in visual conditions. **Rwy 29,** std. w/ min. climb of 832' per NM to 6700, or 3300-3 for climb in visual conditions. **Rwy 33,** std. w/ min. clim b of 355' per NM to 6800, or 3300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15,** climbing right turn direct CPN VOR/DME, or for climb in visual conditions: Cross Bert Mooney Airport westbound at or above 8800 then proceed direct CPN VOR/DME, thence. . **Rwy 29,** climb heading 293° to intercept CPN VOR/DME R-082 to CPN VOR/DME, or for climb in visual conditions: Cross Bert Mooney Airport westbound at or above 8800 then proceed direct CPN VOR/DME, thence. . . **Rwy 33,** climb direct CPN VOR/DME, or for climb in visual condtions: Cross Bert Mooney Airport westbound at or above 8800 then proceed direct CPN VOR/DME, thence. . .

. . .climb in CPN VOR/DME holding pattern (hold north, left turn, 166° inbound) to cross CPN VOR/DME at or above MEA before proceeding enroute.

NOTE: **Rwy 15,** multiple trees beginning 2 NM from departure end of runway, 1779' right of centerline, up to 100' AGL/6659' MSL. Tree 2.1 NM from departure end of runway, 66' left of centerline, 100' AGL/5934' MSL. **Rwy 29,** multiple trees and poles beginning 364' from departure end of runway, 7' right of centerline, up to 100' AGL/5621' MSL. Multiple trees and lights beginning 322' left of centerline, up to 100' AGL/5582' MSL. Terrain and numerous trees beginning 1.2 NM from departure end of runway, 1022' left of centerline, up to 100' AGL/6 379' MSL. **Rwy 33,** flag pole 1095' from departure end of runway, 730' left of centerline, 64' AGL/ 5583' MSL.

CALDWELL, ID

CALDWELL INDUSTRIAL

TAKE-OFF MINIMUMS: **Rwy 12,** std. with a min. climb of 300' per NM to 5600, or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12,** climb via heading 119° to 5600 before proceeding on course. For climb in visual conditions: Cross Caldwell Industrial Airport at or above 4800 before proceeding on course. **Rwy 30,** climb via heading 299° to 4400 before proceeding on course.

NOTE: **Rwy 12,** levee 198' from departure end of runway, 281' left of centerline, 0' AGL/2451' MSL. Multiple trees 1462' from departure end of runway, 877' right of centerline, up to 100' AGL/2505' MSL. **Rwy 30,** multiple poles 206' from departure end of runway, 389' right of centerline, up to 39' AGL/2457' MSL. Rod 353' from departure end of runway, 246' right of centerline, 21' AGL/2439' MSL.

CASPER, WY

CASPER/NATRONA COUNTY INTL (CPR)
AMDT 3A 09155 (FAA)

DEPARTURE PROCEDURE: **Rwys 3,8,12**, turn left. **All other runways,** turn right. **All aircraft** climb direct DDY VORTAC before proceeding on course, or comply with published Casper SIDs.

CHEHALIS, WA

CHEHALIS-CENTRALIA

DEPARTURE PROCEDURE: **Rwy 16,** climb to 1000 via heading 160° then climbing left turn to 4000 via heading 001° and OLM R-151 to OLM VORTAC before proceeding on course. **Rwy 34,** climb to 4000 via heading 340° and OLM R-176 to OLM VORTAC before proceeding on course.

CHEYENNE, WY

CHEYENNE RGNL/JERRY OLSON FIELD

NOTE: **Rwy 13,** multiple trees beginning 74' from departure end of runway, 115' left of centerline, up to 40' AGL/6166' MSL. Multiple trees, pole, and fence beginning 34' from departure end of runway, 167' right of centerline, up to 40' AGL/6154' MSL. **Rwy 27,** multiple trees and poles beginning 525' from departure end of runway, 271' left of centerline, up to 40' AGL/6216' MSL. Multiple trees and poles beginning 1222' from departure end of runway, 275' right of centerline, up to 40' AGL/6211' MSL. **Rwy 31.** multiple trees, road, fence and sign beginning 196' from departure end of runway, 76' left of centerline, up to 40' AGL/6238' MSL. Multiple poles and sign beginning 407' from departure end of runway, 8' left of centerline, up to 69' AGL/6229' MSL.

CODY, WY

YELLOWSTONE RGNL (COD)
AMDT 4 10042 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4,** std. with a min. climb of 400' per NM to 8000' or 4200-3 for climb in visual conditions. **Rwy 22,** std. with a min. climb of 385' per NM to 7400' or 4200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4,** climb heading 038° to 5900, then climbing left turn via COD R-171 to COD VOR/DME or for climb in visual conditions to cross Yellowstone Rgnl at or above 9400, then via COD R-189 to COD VOR/DME to cross COD VOR/DME at or above MEA for route of flight. **Rwy 22,** climb heading 218° to 6600, then climbing left turn via COD R-180 to COD VOR/DME or for climb in visual conditions to cross Yellowstone Rgnl at or above 9400, then via COD R-189 to COD VOR/DME to cross COD VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 4,** trees beginning 100' from DER, 262' right of centerline, up to 79' AGL/5199' MSL. Rising terrain beginning 1723' from DER, 304' right of centerline, up to 5146' MSL. **Rwy 22,** poles beginning 1 NM from DER, 406' right of centerline, up to 60' AGL/5332' MSL. Rising terrain beginning 1 NM from DER, 109' right of centerline, up to 6235' MSL. Rising terrain beginning 5074' from DER, 131' left of centerline, up to 5428' MSL.

COEUR D'ALENE, ID

COEUR D'ALENE-PAPPY BOYINGTON FIELD (COE)
AMDT 9 10042 (FAA)

DEPARTURE PROCEDURE: use COEUR D'ALENE DEPARTURE.

COLSTRIP, MT

COLSTRIP (M46)
AMDT 2 08157 (FAA)

TAKE-OFF MINIMUMS: **Rwy 6** use CISPU (RNAV) DEPARTURE. **Rwy 24,** use CONUK (RNAV) DEPARTURE.

CONRAD, MT

CONRAD

DEPARTURE PROCEDURE: **Rwy 24,** climb runway heading to 4300, then continue climb on course.

CORVALLIS, OR

CORVALLIS MUNI

TAKE-OFF MINIMUMS: **Rwys 9, 17, 35,** std. with a min. climb of 290' per NM to 3100 or 1700-3 for climb in visual conditions. **Rwy 27,** std. with a min. climb of 310' per NM to 3100 or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 9, 17,** climbing left turn direct CVO VOR/DME, thence...or, climb in visual conditions to cross CVO VOR/DME at or above 3400. **Rwys 27, 35,** climbing right turn direct CVO VOR/DME, thence...or, climb in visual conditions to cross CVO VOR/DME at or above 3400.

...climb in CVO VOR/DME holding pattern (E, RT, 261° inbound) to depart at or above 3400.

NOTE: **Rwy 9,** multiple trees and railroad beginning 549' from departure end of runway, 254' left of centerline, up to 153' AGL/383' MSL. Multiple trees and railroad beginning 670' from departure end of runway, 5' right of centerline, up to 135' AGL/380' MSL. **Rwy 27,** obstruction light on glideslope 409' from departure end of runway, 325' left of centerline, 28' AGL/273' MSL. **Rwy 35,** multiple trees beginning 470' from departure end of runway, 544' left of centerline up to 36' AGL/276' MSL.

COWLEY/LOVELL/BYRON, WY

NORTH BIG HORN COUNTY

DEPARTURE PROCEDURE: **Rwys 9, 27**, aircraft departing via HCY NDB bearings 130° CW 225° climb on course, all others climb in HCY NDB holding pattern (W, right turns, 078° inbound) to cross HCY NDB at or above 9000.

DEER PARK, WA

DEER PARK (DEW)
AMDT 1 10098 (FAA)

TAKE-OFF MINIMUMS: **Rwy 34,** 300-1½ or std. with a min. climb of 455' per NM to 2500.

DEPARTURE PROCEDURE: **Rwy 4,** climbing right turn heading 165° and GEG VORTAC R-006 to GEG VORTAC. **Rwy 16,** climb heading 164° and GEG VORTAC R-006 to GEG VORTAC. **Rwy 22,** climbing left turn heading 155° and GEG VORTAC R-006 to GEG VORTAC. **Rwy 34,** climbing right turn heading 165° and GEG VORTAC R-006 to GEG VORTAC.

NOTE: **Rwy 4,** aircraft 261' from DER, 511' left of centerline, up to 21' AGL/2210' MSL. Trees beginning 1809' from DER, 413' left of centerline, up to 109' AGL/2299' MSL. Aircraft 104' from DER, 186' right of centerline, up to 21' AGL/2200' MSL. Trees beginning 1667' from DER, 373' right of centerline, up to 116' AGL/2319' MSL. **Rwy 16,** trees beginning 31' from DER, 455' left of centerline, up to 109' AGL/2279' MSL. Trees beginning 2587' from DER, 621' right of centerline, up to 104' AGL/2264' MSL. **Rwy 22,** trees beginning 1461' from DER, 211' right of centerline, up to 90' AGL/2270' MSL. **Rwy 34,** aircraft 23' from DER, 218' left of centerline, up to 21' AGL/2230' MSL. Trees beginning 2678' from DER, 18' left of centerline, up to 165' AGL/2375' MSL. Vehicles beginning 74' from DER, 339' right of centerline, up to 15' AGL/2234' MSL. Trees beginning 2219' from DER, 260' right of centerline, up to 100' AGL/2382' MSL.

DILLON, MT

DILLON

TAKE-OFF MINIMUMS: **Rwys 3,21,** NA.

DEPARTURE PROCEDURE: **Rwys 16,34**, turn right, climb in DLN VOR/DME holding pattern (N, right turns, 185° inbound) to cross DLN VOR/DME at or above; northwestbound V257 8500; southwestbound V121 8500; northbound V21 7600; southeastbound V21, V257 9400.

DOUGLAS, WY

CONVERSE COUNTY

TAKE-OFF MINIMUMS: **Rwy 5,** 300-2 or std. with a min. climb of 250' per NM to 5200. **Rwy 23,** 1700-3 or std. with a min. climb of 260' per NM to 7200.

DEPARTURE PROCEDURE: **Rwy 5,** climbing right turn via IIP VOR/DME R-342 to IIP VOR/DME. **Rwy 11,** climbing right turn via IIP VOR/DME R-312 to IIP VOR/DME. **Rwy 23,** climbing left turn via IIP VOR/DME R-264 to IIP VOR/DME. **Rwy 29,** climbing right turn via IIP VOR/DME R-325 to IIP VOR/DME. **All aircraft** departing IIP R-253 CW R-180 climb on course. All others continue climb in IIP VOR/DME holding pattern (NW, left turns, 125° inbound) to cross IIP VOR/DME at or above: R-181 CW R-199 9600; R-200 CW R-252 8000.

NOTE: **Rwy 5,** trees 1883' from departure end of runway, 549' right of centerline, 35' AGL/5014' MSL. Trees 3407' from departure end of runway, 209' right of centerline, 35' AGL/5074' MSL. Trees 5458' from departure end of runway, 1954' right of centerline, 35' AGL/5132' MSL. **Rwy 23,** trees 2068' from departure end of runway, 1008' left of centerline, 35' AGL/4994' MSL. Trees 3130' from departure end of runway, 1215' left of centerline, 35' AGL/5014' MSL.

DRIGGS, ID

DRIGGS-REED MEMORIAL (DIJ)
AMDT 2 08157 (FAA)

DEPARTURE PROCEDURE: Use LAMON DEPARTURE.

EASTSOUND, WA

ORCAS ISLAND (ORS)
AMDT 1 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16,** NA-Terrain. **Rwy 34,** 500-3 or std. w/ min. climb of 224' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 34,** climbing right turn to 2000 to intercept HUH VORTAC R-210 to HUH VORTAC, then climb-in-hold (hold South, Left turns, 352° inbound) to cross HUH VORTAC at or above 3800 before proceeding on course.

NOTE: **Rwy 34,** trees beginning 330' from DER, 411' left of centerline, up to 120' AGL/139' MSL.

ELLENSBURG, WA

BOWERS FIELD

TAKE-OFF MINIMUMS: **Rwys 7,11,** 4600-3 or std. with a min. climb of 290' per NM to 7800. **Rwy 25,** 4700-3 or std. with a min. climb of 340' per NM to 7800. **Rwy 29,** 4600-3 or std. with a min. climb of 320' per NM to 7800.

DEPARTURE PROCEDURE: **Rwys 7, 29,** climbing right turn direct ELN VORTAC. **Rwys 11, 25,** climbing left turn direct ELN VORTAC. **All aircraft,** continue climbing in the ELN VORTAC holding pattern (W, right turns, 087° inbound) to MEA/MOCA for route of flight.

EPHRATA, WA

EPHRATA MUNI (EPH)
AMDT 3 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 29,** NA-Obstacles.

DEPARTURE PROCEDURE: **Rwy 3,** climb heading 027° to 2300 before proceeding on course. **Rwy 11,** climb heading 112° to 2200 before proceeding on course. **Rwy 21,** climb heading 207° to 2800 before proceeding on course.

EUGENE, OR

MAHLON SWEET FIELD

DEPARTURE PROCEDURE: **Rwys 16L, 16R,** climb to 1000 then climbing right turn...**Rwys 34L, 34R,** climb to 1000 then climbing left turn...

...all aircraft climb direct EUG VORTAC, then climb in EUG VORTAC holding pattern (hold north, right turn, 175° inbound) to cross EUG VORTAC at or above MEA altitude before proceeding enroute.

NOTE: **Rwy 16R,** tree 1992' from departure end of runway, 832' left of centerline, 50' AGL/419' MSL. **Rwy 16L,** multiple trees and power poles beginning 872' from departure end of runway, 35' right of centerline, up to 50' AGL/437' MSL, multiple trees and power poles beginning 890' from departure end of runway, 77' left of centerline, up to 50' AGL/433' MSL. **Rwy 34R,** multiple trees beginning 2869' from departure end of runway, 186' right of centerline, up to 50' AGL/447' MSL. Tree 2535' from departure end of runway, 652' left of centerline, 50' AGL/428' MSL.

EVANSTON, WY

EVANSTON-UINTA COUNTY BURNS FIELD

DEPARTURE PROCEDURE: **Rwy 5**, climb via heading 050° and FBR VOR/DME R-243 to FBR VOR/DME.

Rwy 23, climbing left turn via heading 030° and FBR VOR/DME R-243 to FBR VOR/DME.

All aircraft: cross FBR VOR/DME at or above MEA for direction of flight.

EVERETT, WA

SNOHOMISH COUNTY (PAINE FIELD)

TAKE-OFF MINIMUMS: **Rwy 29,** std. with a min. climb of 353' per NM to 800.

DEPARTURE PROCEDURE: **Rwys 11, 16L/R,** climbing right turn, thence...**Rwys 29, 34L/R,** climbing left turn, thence...

...for aircraft departing via V287 west bound, climb via PAE VOR/DME R-236 to 3000. All others, climb direct PAE VOR/DME, climb in PAE VOR/DME holding pattern (NW, RT, 149° inbound) to MEA for route of flight before proceeding on course.

NOTE: **Rwy 11,** multiple antennas on building, rod on obstruction light, and trees beginning 326' from departure end of runway, 387' right of centerline, up to 85' AGL/664' MSL. Tree 1156' from departure end of runway, 600' left of centerline, 93' AGL/672' MSL. **Rwy 16L,** multiple trees and pole beginning 588' from departure end of runway, 220' left of centerline, up to 118' AGL/697' MSL. Multiple trees, pole, and building beginning 449' from departure end of runway, 162' right of centerline, up to 78' AGL/657' MSL. **Rwy 16R,** multiple trees beginning 1228' from departure end of runway, 168' left of centerline, up to 140' AGL/699' MSL. Multiple trees beginning 707' from departure end of runway, 158' right of centerline, up to 118' AGL/687' MSL. **Rwy 29,** multiple trees beginning 45' from departure end of runway, 66' left of centerline, up to 111' AGL/630' MSL. Multiple trees beginning 343' from departure end of runway, 44' right of centerline, up to 110' AGL/689' MSL. **Rwy 34R,** multiple trees and pole beginning 3340' from departure end of runway, 180' right of centerline, up to 95' AGL/674' MSL. Tree 5762' from departure end of runway, 221' left of centerline, 103' AGL/682' MSL.

FAIRCHILD AFB (KSKA)

SPOKANE, WA . . . . . ORIG, 08017

DEPARTURE PROCEDURES: **Rwy 5**, climb on track 048° to intercept SKA R-045 to 5300, then on course. **Rwy 23**, climb on track 241° to 3400, then on course.

TAKE-OFF OBSTACLES: **Rwy 23**, Terrain 2468' MSL, 194' from DER, 405' right of centerline. Terrain 2477' MSL, 461' from DER, 751' right of centerline. Terrain 2477' MSL, 509' from DER, 750' right of centerline.

FORT BENTON, MT

FORT BENTON

TAKE-OFF MINIMUMS: **Rwys 5, 23,** std. w/ min. climb of 274' per NM to 8900 or 5100-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 5, 23,** for climb in visual conditions: Cross Fort Benton Airport at or above 8900 MSL before proceeding on course.

FORT BRIDGER, WY

FORT BRIDGER

DEPARTURE PROCEDURE: **All aircraft** climb direct FBR VOR/DME. Aircraft departing; FBR R-210 CW R-135 climb on course; FBR R-136 CW R-209 cross FBR VOR/DME at or above 9000. (Hold NE, right turns, 215° inbound).

FRIDAY HARBOR, WA

FRIDAY HARBOR

TAKE-OFF MINIMUMS: **Rwy 34,** 500-1.

DEPARTURE PROCEDURE: Aircraft departing FHR NDB **Rwy 34,** climbing right turn direct FHR NDB, then climb on course. All other aircraft climb on course.

GILLETTE, WY

GILLETTE-CAMPBELL COUNTY (GCC)

AMDT 4 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16,** std. w/ min. climb of 275' per NM to 5600, or 1200-3 for climb in visual conditions. **Rwy 21,** 600-3 or std. w/ min. climb of 425' per NM to 5200.

DEPARTURE PROCEDURE: **Rwy 16,** climb via heading 158° to 5100, before proceeding on course or, for climb in visual conditions cross Gillette-Campbell County airport at or above 5400 before proceeding on course. **Rwy 21,** climb via heading 206° to 5200, before proceeding on course.

NOTE: **Rwy 3,** windsock 1415' from DER, 100' left of centerline, 24' AGL/4366' MSL. Trees beginning 1976' from DER, 267' right of centerline, up to 30' AGL/4409' MSL. **Rwy 16,** tower and poles beginning 1.61 NM from DER, 1264' left of centerline, up to 57' AGL/4696' MSL. Post and trees beginning 1.77 NM from DER, 300' right of centerline, up to 51' AGL/4789' MSL. **Rwy 21,** fence 328' from DER, 267' left of centerline, 7' AGL/4352' MSL, trees 2077' from DER, 1011' right of centerline, 30' AGL/4449' MSL, tree 7029' from DER, 2378' right of centerline, 30 ' AGL/4729' MSL. **Rwy 34,** fence 1236' from DER, 723' left of centerline, 16' AGL/4380' MSL. Vehicle on road 1609' from DER, 419' left of centerline, 15' AGL/4394 ' MSL. Trees 3093' from DER, 936' right of centerline, 30' AGL/4449 ' MSL. Vehicle on road 1610' from DER. 419' left of centerline, 15' AGL/4380' MSL.

GOODING, ID

GOODING MUNI (GNG)

ORIG 08269 (FAA)

DEPARTURE PROCEDURE: **Rwy 7,** climb heading 068° to 5000 before turning left. **Rwy 25,** climb heading 233° to 5600 before turning right.

NOTE: **Rwy 7,** rising terrain 59' from departure end of runway, 479' right of centerline, up to 3754' MSL. Fence line 653' from departure end of runway, 332' right of centerline, 12' AGL up to 3751' MSL. Bushes starting 877' from departure end of runway, 420' right of centerline, 20' AGL up to 3795' MSL. **Rwy 25,** vehicle on road, 91' from departure end of runway, 257' left of centerline, up to 10' AGL/3678' MSL.

GRANGEVILLE, ID
IDAHO COUNTY (S80)
AMDT 1 08157 (FAA)
TAKE-OFF MINIMUMS: **Rwy 7,** NA - Obstacles.
DEPARTURE PROCEDURE: **Rwy 25,** Use MELLR DEPARTURE.

GRANTS PASS, OR
GRANTS PASS
TAKE-OFF MINIMUMS: **Rwy 12,** NA. **Rwy 30,** 4000-3 or std. with a min. climb of 360' per NM to 5000.
DEPARTURE PROCEDURE: **Rwy 30,** climb via heading 320 until passing 5000, then climbing right turn direct RBG VOR/DME. Cross RBG VOR/DME at or above MEA for route of flight.

GRAY AAF (KGRF)
FORT LEWIS, WA . . . . AMDT 2, 10098
Rwy 15, Standard
Rwy 33, 300-1*
* Or standard with minimum climb of 430/NM to 600.
DEPARTURE PROCEDURE: **Rwy 15,** Climb heading 147° to 700 then climbing left turn direct GRF NDB.
Rwy 33, Climb direct GRF NDB. Aircraft departing 330° CW 070° and 135° CW 260° bearing from GRF NDB climb on course. All others continue climb in GRF NDB holding pattern (hold NW, RT, 147° inbound) to cross GRF NDB at or above: 071° CW 134° bearing from GRF NDB, 8500; 261° CW 329° bearing from GRF NDB, 1500.
TAKE-OFF OBSTACLES: **Rwy 15,** Tree 100' AGL/ 439' MSL, 1848' from DER, 430' right of centerline. **Rwy 33,** Tree 100' AGL/479' MSL, 3465' from DER, 1338' left of centerline.

GREAT FALLS, MT
GREAT FALLS INTL
NOTE: **Rwy 7,** obstruction light on lighted wind sock 237' from departure end of runway, 519' left of centerline, 34' AGL/3694' MSL. Obstruction light on building 2226' from departure end of runway, 614' left of centerline, 78' AGL/3738' MSL. Building on 681' from departure end of runway, 583' right of centerline, 48' AGL/3688' MSL. Multiple light poles beginning 1359' from departure end of runway, 440' right of centerline, up to 90' AGL/3746' MSL. **Rwy 21,** pole 1544' from departure end of runway, 791' left of centerline, 45' AGL/3725' MSL. **Rwy 25,** windmill 2.3 NM from departure end of runway, 4197' right of centerline, 338' AGL/4003' MSL.

GREYBULL, WY
SOUTH BIG HORN COUNTY (GEY)
ORIG-A 09239 (FA)
TAKE-OFF MINIMUMS: **Rwy 25,** 300-1 or std. w/ min. climb of 260' per NM to 4200.
DEPARTURE PROCEDURE: **All runways**, for departures on GEY bearings 320° CW 150°, climb in GEY NDB holding pattern to 9000 before departing on course, then continue climb to MEA or assigned altitude. Departures GEY bearings 150° CW 320° climb on course.
NOTE: **Rwy 25,** bush 4955' from DER, 1268' right of centerline, 2' AGL/4101' MSL.

GUERNSEY, WY
CAMP GUERNSEY
TAKE-OFF MINIMUMS: **Rwy 14,** 300-1 or std. with a min. climb of 320' per NM to 4700. **Rwy 32,** 1400-2 or std. with a min. climb of 320' per NM to 5800.
DEPARTURE PROCEDURE: **Rwy 14,** climb to 5600 via heading 150°. **Rwy 32,** climb to 5800 via heading 070°. **All aircraft** continue on course.

HAILEY, ID
FRIEDMAN MEMORIAL
TAKE-OFF MINIMUMS: **Rwy 13,** 2700-3 w/ min. climb of 307' per NM to 6400, or 3600-3 for climb in visual conditions. **Rwy 31,** NA-obstacles.
DEPARTURE PROCEDURE: **Rwy 13,** Climbing right turn heading 149°, then on 160° course to HLE NDB, or for climb in visual conditions: cross Friedman Memorial Airport at or above 8800 heading 151°, then on 151° course to HLE NDB.
NOTE: **Rwy 13,** multiple trees beginning 763' from departure end of runway, 3' right of centerline, up to 100' AGL/5345' MSL. Multiple trees beginning 1.3 NM from departure end of runway, 2587' right of centerline, up to 100' AGL/6099' MSL.

HAMILTON, MT
RAVALLI COUNTY
DEPARTURE PROCEDURE: Use HAMEY RNAV DEPARTURE.

HAVRE,MT
HAVRE CITY-COUNTY (HVR)
AMDT 3 09351 (FAA)
TAKE-OFF MINIMUMS: **Rwy 8,** 300-1¾ or std. w/ min. climb of 217' per NM to 3300.
DEPARTURE PROCEDURE: **Rwy 3,** climb heading 032° to 3300 then climbing left turn to 8000 direct HVR VOR/DME thence...**Rwy 8,** climb heading 077° to 3300 then climbing left turn to 8000 via HVR R-025 to HVR VOR/DME thence...**Rwy 21,** climb heading 212° to 3300 then climbing right turn to 8000 direct HVR VOR/ DME thence...**Rwy 26,** climb heading 257° to 3300 then climbing right turn to 8000 direct HVR VOR/DME thence...
...continue climb in hold in HVR VOR/DME holding pattern (hold west, right turns, 094° inbound) to cross HVR VOR/DME at or above 8000 before proceeding on course.
NOTE: **Rwy 3,** pole 2682' from DER, 1044' left of centerline, 21' AGL/2680' MSL. **Rwy 8,** obstruction light on windsock 59' from DER, 224' left of centerline, 9' AGL/2588' MSL. Tree 1192' from DER, 752' left of centerline, 25' AGL/2610' MSL. Tank 1.3 NM from DER, 2287' left of centerline, 57' AGL/2797' MSL. **Rwy 26,** light on windsock, 50' from DER, 225' right of centerline, 9' AGL/2589' MSL. Trees beginning 1617' from DER, 650' right of centerline, 25' AGL/2659' MSL.

HELENA, MT

HELENA RGNL (HLN)
ADMT 9 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 5,** 2500-3 or std. w/ min. climb of 250' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwy 9,** std. w/ min. climb of 240' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwy 23,** 1600-3 or std. w/ min. climb of 560' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwy 27**,1600-3 or std. w/ min. climb of 390' per NM to 8100, or 1600-3 for climb in visual conditions. **Rwys 16,34,** NA.

DEPARTURE PROCEDURE: **Rwys 5,9,** climbing left turn heading 270°. **Rwys 23,27,** climbing right turn heading 020°. **All Aircraft:** continue climb northwestbound via HLN R-318 to 8100, then climbing right turn direct HLN VORTAC, cross HLN VORTAC at or above 9000, before proceeding on course, or for climb in visual conditions: cross Helena Rgnl airport northbound at or above 5300 and continue climbing via HLN R-336 to WOKEN INT before proceeding on course.

NOTE: **Rwy 5,** ground beginning 5' from departure end of runway, 495' right of centerline, up to 3826' MSL. Fence beginning 423' from departure end of runway, 331' right of centerline, up to 10' AGL/3832' MSL**. Rwy 23,** pole 2198' from departure end of runway, 462' left of centerline, 76' AGL/3996' MSL, tree 1011' from departure end of runway, 379' left of centerline, 44' AGL/3964' MSL, rod on building 953' from departure end of runway, 321' left of centerline, 323' AGL/943' MSL, tree 1519' from departure end of runway, 142' right of centerline, 53' AGL/3953' MSL. **Rwy 27,** buildilng 1593' from departure end of runway, 731' left of centerline, 58' AGL/6385' MSL. Ground beginning 101' from departure end of runway, 346' left of centerline, up to 3871' MSL. Tree 1567' from departure end of runway, 616' left of centerline, 47' AGL/ 3906' MSL.

HERMISTON, OR

HERMISTON MUNI

NOTE: **Rwy 4,** tower 379' left of departure end of runway, 50' AGL/698' MSL. **Rwy 22,** light pole 456' left of departure end of runway, 44' AGL/684' MSL.

HOQUIAM, WA

BOWERMAN

TAKE-OFF MINIMUMS: **Rwy 6**, 600-2 or std. with a min. climb of 260' per NM to 600.

DEPARTURE PROCEDURE: **Rwy 6,** climbing right turn heading 110°: **Rwy 24,** climb runway heading. **All aircraft** climb to 600 continue climb on course.

HULETT, WY

HULETT MUNI (W43)
ORIG 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwy 13,** std. w/ min. climb of 450' per NM to 6300, or 500-2¼ w/ min. climb of 295' per NM to 7700, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 13,** climb to 7700 via heading 132° before proceeding on course, or climb in visual conditions: cross Hulett Muni Airport at or above 6300 before proceeding on course. **Rwy 31,** climbing right turn on a heading between 090° clockwise to 115° from departure end of runway to 7700 before proceeding on course.

NOTE: **Rwy 13,** road 398' from departure end of runway, 37' left of centerline, 15' AGL/4296' MSL, truck on road 1126' from departure end of runway, 346' right of centerline, 15' AGL/4334' MSL, trees beginning 4945' from departure end of runway, across centerline, up to 100' AGL/4657' MSL. **Rwy 31,** terrain 104' from departure end of runway, 420' left of centerline, 4200' MSL, terrain 344' from departure end of runway, 233' left of centerline, 4207' MSL.

IDAHO FALLS, ID

IDAHO FALLS RGNL (IDA)
AMDT 4 09351 (FAA)

DEPARTURE PROCEDURE: **All aircraft** departing IDA R-160 CW R-040 climb on course. **All others** climb direct IDA VOR/DME. Continue climb in IDA holding pattern (South, left turns, 019° inbound) to cross IDA VOR/DME at or above 7500 before proceeding on course.

NOTE: **Rwy 2,** pole 1039' from DER, 758' left of centerline, 42' AGL/4762' MSL. **Rwy 17,** trees, flagpole, building, light and vent on buildings, and vehicle on road beginning 29' from DER, 10' right of centerline, up to 84' AGL/4820' MSL. Trees and vent on building beginning 569' from DER, 22' left of centerline, up to 35' AGL/4760' MSL. Trees, antenna, and light poles beginning 1853' from DER, 26' right of centerline, up to 121' AGL/4851' MSL. **Rwy 35,** trees and railroad beginning 410' from DER, 503' right of centerline, up to 49' AGL/4769' MSL. Tree 1034' from DER, 715' left of centerline, 42' AGL/4762' MSL.

JACKSON,WY

JACKSON HOLE

DEPARTURE PROCEDURE: **Rwy 1,** use GEYSER DEPARTURE. **Rwy 19,** use TETON DEPARTURE.

JEROME, ID

JEROME COUNTY (JER)
AMDT 2 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 9,** 500-1¾ or std. w/ min. climb of 435' per NM to 4700.

DEPARTURE PROCEDURE: **Rwy 9,** climb heading 086° to 5300 before proceeding on course. **Rwy 27**, climb heading 266° to 4800 before proceeding on course.

NOTE: **Rwy 9,** bush 140' from DER, 500' left of centerline, 16' AGL/4076' MSL. Poles starting 1432' from DER, 32' left of centerline, up to 47' AGL/4169' MSL. Sign 1473' from DER, 547' left of centerline, 49' AGL/4119' MSL. Obstruction light on building 1510' from DER, 6' left of centerline, 43' AGL/4103' MSL. Trees starting 1651' from DER, 100' left of centerline, up to 53' AGL/4137' MSL. Building 2186' from DER, 173' left of centerline, 29' AGL/4119' MSL. Rising terrain starting 2549' from DER, 560' left of centerline, up to 4219' MSL. AG equip 4752' from DER, 517' left of centerline, 26' AGL/4175' MSL. Poles starting 600' from DER, 254' right of centerline, up to 48' AGL/4173' MSL. **Rwy 27,** fence starting 18' from DER, 440' left of centerline, up to 9' AGL/3969' MSL.

JOHN DAY, OR

GRANT COUNTY RGNL/OGILVIE FIELD (GCD)
AMDT 1 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwys 9, 17, 35,** NA, Terrain.

DEPARTURE PROCEDURE: **Rwy 27,** climbing left turn to 12000 heading 270° and IMB R-100 to IMB VORTAC, climb in IMB VORTAC holding pattern (E, right turns, 280° inbound) to cross IMB VORTAC at or above MEA for route of flight.

NOTE: **Rwy 27,** fence beginning 195' from departure end of runway, 50' right of centerline, up to 16' AGL/3665' MSL. Trees beginning 229' from departure end of runway, 261' right of centerline, up to 26' AGL/3662' MSL. Bush 389' from departure end of runway, 438' right of centerline, 20' AGL/3659' MSL.

KALISPELL, MT

GLACIER PARK INTL

DEPARTURE PROCEDURE: Use SKOTT DEPARTURE.

KELSO, WA

SOUTHWEST WASHINGTON RGNL (KLS)
AMDT 3 10098 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12,** NA, terrain. **Rwy 30,** std. with a min. climb of 370' per NM to 1900 or 1900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE:. **Rwy 30**, climb heading 303° to 1900 then climbing right turn to 3900 direct LSO NDB. Continue climb in LSO NDB holding pattern (North, right turns, 175° inbound) to cross LSO NDB at or above 3900, then via BTG R-310 to BTG VORTAC. For climb in visual conditions: cross Southwest Washington Rgnl at or above 1800, then via BTG R-309 to BTG VORTAC.

NOTE: **Rwy 30,** light pole 22' from DER, 301' right of centerline, 30' AGL/49' MSL. Windsock 235' from DER, 348' left of centerline, 30' AGL/49' MSL. Rotating beacon 502' from DER, 425' left of centerline, 50' AGL/70' MSL. Multiple trees beginning 213' from DER, 530' right to 747' left of centerline, up to 136' AGL/155' MSL. Pole 964' from DER, 44' right of centerline, 30' AGL/50' MSL.

KEMMERER, WY

KEMMERER MUNI (EMM)
AMDT 1 09239 (FAA)

TAKE-OFF MINIMUMS: **Rwys 4,10,22,28,** NA - Rwy surfaces.

DEPARTURE PROCEDURE: **Rwy 16,** climb to 12000 via heading 166° and FBR VOR/DME R-330 to FBR VOR/DME before proceeding on course. **Rwy 34,** climb via heading 346° to 8200 then climbing right turn to12000 via heading 125° and FBR VOR/DME R-345 to FBR VOR/DME before proceeding on course.

KLAMATH FALLS, OR

KLAMATH FALLS

TAKE-OFF MINIMUMS: **Rwy 7**, NA. **Rwy 14**, 1100-3 or std. with a min. climb of 275' per NM to 5500. **Rwy 25**, 3300-3 or std. with a min. climb of 250' per NM to 7400. **Rwy 32**, 2000-3 or std. with a min. climb of 320' per NM to 6300.

DEPARTURE PROCEDURE: **Rwys 14,25**, climb via runway heading to 6000 then climbing right turn direct LMT VORTAC, thence... **Rwy 32**, climb via runway heading to 5500 then climbing left turn direct LMT VORTAC, thence... climb in LMT holding pattern (W, right turns, 070° inbound) to cross LMT VORTAC at or above 8000.

LA GRANDE, OR

LA GRANDE/UNION COUNTY

TAKE-OFF MINIMUMS: **Rwy 12**, Cat A/B 2900-3 or std. with a min. climb of 350' per NM to 6100. Cat C/D 4500-3 or std. with a min. climb of 500' per NM to 7800. **Rwy 30,** Cat A/B 2900-3 or std. with a min. climb of 350' per NM to 6100. Cat C/D 3600-3 or std. with a min. climb of 450' per NM to 6800. **Rwy 34,** 2900-3 or std. with a min. climb of 350' per NM to 6100. **Rwy 16,** 2000-3 or std. with a min. climb of 500' per NM to 5000.

DEPARTURE PROCEDURE: **Rwy 12**,**16,** climbing left turn direct LGD NDB, thence; **Rwys 30,34,** climbing right turn heading 010°, thence; **all aircraft** climb to 7000 via the 339° bearing from LGD NDB, then climbing right turn direct LGD NDB.

LAKEVIEW, OR
LAKE COUNTY
TAKE-OFF MINIMUMS: **Rwy 16,** 3700-5 or std. with a min. climb of 320' per NM to 8800. **Rwy 34,** 2500-5 or std. with a min. climb of 320' per NM to 8500.
DEPARTURE PROCEDURE: **Rwy 16**, climbing right turn via LKV R-163 to LKV VORTAC. **Rwy 34**, climbing left turn heading 320° to intercept LKV R-148 then via LKV R-148 to LKV VORTAC. **All aircraft** continue climbing in the LKV VORTAC holding pattern (NW, right turns, 148° inbound) to MEA for route of flight.

LARAMIE, WY
LARAMIE RGNL
DEPARTURE PROCEDURE: **Rwy 3**, turn left. **Rwys 12,21**, turn right. **All aircraft** climb direct LAR VORTAC, continue climb in holding pattern (W, left turns, 107° inbound) to cross LAR VORTAC at or above: westbound V4, 10600. All others cross LAR VORTAC at or above MEA for direction of flight.

LAUREL, MT
LAUREL MUNI
TAKE-OFF MINIMUMS: **Rwys 9, 14, 27, 32,** NA.
DEPARTURE PROCEDURE: **Rwy 22**, turn left. **All aircraft** climb direct BIL VORTAC.

LEWISTON,ID
LEWISTON-NEZ PERCE COUNTY
DEPARTURE PROCEDURE: **Rwys 8,11,26,29**, turn left direct MQG VOR/DME. Continue climb in holding pattern (W, left turns, 066° inbound) to cross MQG VOR/DME at or above 3600.

LEWISTOWN,MT
LEWISTOWN MUNI
TAKE-OFF MINIMUMS: **Rwy 2,** 1800-2 or std. with a min. climb of 280' per NM to 6900. **Rwy 7,12,** 900-2 or std. with a min. climb of 220' per NM to 6200.
DEPARTURE PROCEDURE:**Rwys 2,30** turn left. **Rwys 7,12,20**, turn right. **Rwy 25**, climb runway heading. **All aircraft** climb direct LWT VORTAC. Continue climb in holding pattern (W, right turns, 094° inbound) to MEA for route of flight.

LEXINGTON, OR
LEXINGTON
TAKE-OFF MINIMUMS: **Rwy 26,** std. with min. climb of 280' per NM to 7600, or 1600-2 ½ for climb in visual conditions. **Rwy 8,** std. with min. climb of 490' per NM to 4200, or 1600-2 ½ for climb in visual conditions.
DEPARTURE PROCEDURE: **Rwys 8, 26,** for climb in visual conditions: cross Lexington Airport at or above 3600.
NOTES: **Rwy 8,** trees 1.42 NM from departure end of runway, 2386' left of centerline, 100' AGL/2159' MSL. Trees 1.48 NM from departure end of runway, 2755' left of centerline, 100' AGL/2179' MSL.

LIBBY, MT
LIBBY
TAKE-OFF MINIMUMS: **Rwy 33,** not authorized. **Rwy 15,** use EYESE RNAV DEPARTURE.

LIVINGSTON, MT
MISSION FIELD (LVM)
AMDT 3 09071 (FAA)
TAKE-OFF MINIMUMS: **Rwys 8,13,26,31,** NA-Enivironmental.
DEPARTURE PROCEDURE: **Rwys 4, 22,** use LIVINGSTON DEPARTURE.

MADRAS, OR
MADRAS MUNI (S33)
AMDT 1 10154 (FAA)
TAKE-OFF MINIMUMS: **Rwys 16, 22,** std. with a min. climb of 298' per NM to 3900 or 1300-3 for climb in visual conditions
DEPARTURE PROCEDURE: **Rwys 4, 34,** climbing left turn heading 210° to intercept DSD R-348 to DSD VORTAC, thence… **Rwy 16,** climbing right turn heading 210° to intercept DSD R-348 to DSD VORTAC, thence… , or for climb in visual conditions: cross Madras Muni airport at or above 3600 MSL, then proceed on DSD R-356 to DSD VORTAC, thence…**Rwy 22,** climb heading 216° to intercept DSD R-348 to DSD VORTAC, thence ... , or for climb in visual conditions: cross Madras Muni airport at or above 3600 MSL, then proceed on DSD R-356 to DSD VORTAC, thence ...
…continue climb-in-hold (hold North, right turns, 168° inbound) to MEA/MCA for route of flight.
NOTE: **Rwy 4,** vehicle on road beginning 7' from DER,268' left of centerline, up to 15' AGL/2444' MSL. Airplane on tarmac 60' from DER, 252' right of centerline, 40'AGL/2469' MSL. Bush 383' from DER, 483' right of centerline, 19' AGL/2439' MSL. Vehicle on road 742' from DER, 112' right of centerline, up to 15' AGL/2447' MSL. **Rwy 16,** bushes beginning 196'from DER, 151' left of centerline, up to 14' AGL/2444'MSL. Airplane on tarmac 1357' from DER, 280' right of centerline 40' AGL/2479' MSL. **Rwy 34,** bushes beginning 92' from DER, 116' right of centerline, up to 17' AGL/2437' MSL. Airplane on tarmac 1396' from DER, 375' left of centerline, 40' AGL/2469' MSL.

MC CALL, ID
MC CALL MUNI (MYL)
AMDT 2 09127 (FAA)
TAKE-OFF MINIMUMS: **Rwy 34**, NA-Obstacles.
DEPARTURE PROCEDURE: **Rwy 16**, use MCCALL DEPARTURE.

MC CHORD FIELD (KTCM)

TACOMA, WA 10154

DEPARTURE PROCEDURE: **Rwy 16,** Track heading 160°, turn left to intercept SEA VORTAC R-168 (V495) to SEA 168/37.1 DME (ALDER). Cross ALDER at or above 4000. After ALDER, maintain MEA/MOCA for route of flight. **Rwy 34,** Track heading 340°, then turn right to intercept SEA VORTAC R-168 (V495) to SEA R-168/37.1 DME (ALDER). Cross ALDER at or above 4000. Maintain MEA/MOCA for route of flight.

TAKEOFF OBSTACLES: **Rwy 16,** Grove of trees 143' AGL/454' MSL, 4892' from DER, 1353' left of centerline. Grove of trees 102' AGL/419' MSL, 2395' from DER, 1028' right of centerline. Trees 136' AGL/447' MSL, 2867' from DER, 1261' left of centerline. Trees 120' AGL/430' MSL, 2594' from DER, 1113' left of centerline. Trees 85' AGL/394' MSL, 2310' from DER, 957' left of centerline. Trees 83' AGL/392' MSL, 2006' from DER, 959' left of centerline. Trees 87' AGL/389' MSL, 1758' from DER, 971' left of centerline. **Rwy 34,** Tree 106' AGL/348' MSL, 2307' from DER, 1038' left of centerline. Tree 121' AGL/370' MSL, 3190' from DER, 526' right of centerline. Aircraft 65' AGL/317' MSL, 186' from DER, 407' left of centerline. Tree 64' AGL/343' MSL, 2260' from DER, 1036' left of centerline. Building 40' AGL/321' MSL, 1668' from DER, 810' left of centerline.

MC MINNVILLE, OR

MC MINNVILLE MUNI (MMV)

AMDT 4 08325 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4,** 400-1¼ or std. w/ min. climb of 238' per NM to 400, or alternatively, with standard take-off minimums and normal 200'/NM climb gradient, take-off must occur no later than 2000' prior to departure end of runway. **Rwy 17,** std. w/ min. climb of 300' per NM to 1200 or 1800-2½ for climb in visual conditions. **Rwy 22,** std. w/ min. climb of 303' per NM to 1400 or 1800-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 4,** climb heading 038° to intercept UBG R-170 to UBG VOR/DME, thence ...

Rwy 17,22, climbing left turn to intercept UBG R-183 to UBG VOR/DME, thence ... or for climb in visual conditions: cross Mc Minnville Muni at or above 1800 before proceeding on course. **Rwy 35,** climb heading 347° to intercept UBG R-221 to UBG VOR/DME, thence...

... continue climb in UBG VOR/DME holding pattern (S, left turns, 003° inbound) until reaching MEA for route of flight.

NOTE: **Rwy 4,** multiple trees beginning 2040' from departure end of runway, 353' left and 209' right of centerline, up to 100' AGL/339 feet MSL. **Rwy 17,** tree 1719' from departure end of runway, 456' right of centerline, 100' AGL/231' MSL. Tree 1760' from departure end of runway, 627' left of centerline, 100' AGL/257' MSL. **Rwy 22,** multiple trees beginning 282' from departure end of runway, 120' left and 144' right of centerline, up to 100' AGL/246' MSL. Tree 4047' from departure end of runway, 1319' left of centerline, 100' AGL/284' MSL. **Rwy 35,** multiple trees beginning 1551' from departure end of runway, 229' right of centerline, up to 100' AGL/277'MSL.

MEDFORD,OR

ROGUE VALLEY INTL-MEDFORD (MFR)

AMDT 9 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwys 9,27,** NA-Obstacles. **Rwy 14**, std. w/ min. climb of 430' per NM to 4600, or 2900-3 for climb in visual conditions. **Rwy 32,** std. with a min. climb of 260' per NM to 6800, or 2900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 14,** climbing right turn direct OED VORTAC, or for climb in visual conditions, cross Rogue Valley Intl airport at or above 4100 before proceeding direct OED VORTAC...

Rwy 32, climbing right turn direct OED VORTAC, or for climb in visual conditions, cross Rogue Valley Intl airport at or above 4100 before proceeding direct OED VORTAC...

...all aircraft climb in OED VORTAC holding pattern (hold NW, right turns, 153° inbound) to cross OED VORTAC at or above 6400.

MISSOULA, MT

MISSOULA INTL (MSO)

AMDT 8 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwys 7,25**, NA-Obstacles.

DEPARTURE PROCEDURE: **Rwys 11, 29,** use GRZLY DEPARTURE.

MOSES LAKE, WA

GRANT COUNTY INTL

NOTE: **Rwy 14R,** antenna 3902' from departure end of runway, 828' right of centerline, 98' AGL/1268' MSL. **Rwy 18,** pole 405' from departure end of runway, 334' right of centerline, 30' AGL/1209' MSL. Windsock 496' from departure end of runway, 371' left of centerline, 16' AGL/1195' MSL. **Rwy 32L,** pole 1326' from departure end of runway, 373' left of centerline, 22' AGL/1202' MSL.

MOUNTAIN HOME AFB (KMUO)

MOUNTAIN HOME, ID 07270

Rwy 12, 30, 6700-3*

* Or standard with minimum climb of 270/NM to 9100.

TAKE-OFF OBSTACLES: **Rwy 12**, Terrain 0' AGL/3028' MSL, 1224' from DER, 744' right of centerline. Terrain 0' AGL/3035' MSL, 824' from DER, 721' right of centerline. Terrain 0' AGL/3035' MSL, 507' from DER, 636' right of centerline. Terrain 0' AGL/3022' MSL, 49' from DER, 202' right of centerline. Terrain 0' AGL/3018' MSL, 148' from DER, 328' left of centerline. Terrain 0' AGL/3016' MSL, 300' from DER, 580' left of centerline. Road/Vehicle 15' AGL/3044' MSL, 1147' from DER, 794' right of centerline. Power pole 35' AGL/3069' MSL, 2914' from DER, 940' right of centerline. Tower 30' AGL/3032' MSL, 1067' from DER, 902' right of centerline. Tower 28' AGL/3039' MSL, 1172' from DER, 796' right of centerline. Tower 45' AGL/3054' MSL, 2152' from DER, 1478' left of centerline. **Rwy 30**, Terrain 0' AGL/2995' MSL, 40' from DER, 492' left of centerline. Terrain 0' AGL/2999' MSL, 370' from DER, 467' right of centerline. Terrain 0' AGL/3006' MSL, 507' from DER, 636' right of centerline. Terrain 0' AGL/3007' MSL, 570' from DER, 653' right of centerline. Road/Vehicle 35' AGL/3019' MSL, 954' from DER, 773' left of centerline.

MOUNTAIN HOME, ID

MOUNTAIN HOME MUNI

TAKE-OFF MINIMUMS: **Rwy 10,** 3500-2 or std. with a min. climb of 305' per NM to 7300. **Rwy 28,** 3500-2 or std. with a min. climb of 290' per NM to 7300.

DEPARTURE PROCEDURE: **Rwy 10,** climbing left turn direct STI NDB. **Rwy 28,** climbing right turn direct STI NDB. **All aircraft** departing STI NDB bearing 080° CW 340° climb on course. All others continue climb in hold (E, left turns, 271° inbound) to cross STI NDB at or above 7300.

NAMPA, ID

NAMPA MUNI

DEPARTURE PROCEDURE: **Rwy 11**, climbing right turn direct MPA NDB, continue climb in MPA holding pattern (NW, right turns, 145° inbound). Depart MPA NDB at or above 5500 before proceeding on course. **Rwy 29,** climb runway heading to 3700 then climbing right turn direct MPA NDB, continue climb in MPA holding pattern (NW, right turns, 145° inbound). Depart MPA NDB at or above 5500 before proceeding on course.

NOTE: **Rwy 11,** 70' AGL tree, 1225' from departure end of runway, 90' right of centerline.

NEWCASTLE, WY

MONDELL FIELD (ECS)

AMDT 3A 09267 (FAA)

TAKE-OFF MINIMUMS: **Rwys 5,17,23,35,** NA. **Rwy 13,** 200-1 or std. with a min. climb of 275' per NM to 4400. **Rwy 31,** 300-1 or std. with a min. climb of 300' per NM to 4600.

DEPARTURE PROCEDURE: **Rwy 31,** climbing left turn. **All aircraft** climb to 5500 via ECS R-143, then climbing right turn direct ECS VOR, continue climb on course.

NOTE: **Rwy 13,** fence posts, beginning 299' from DER, 218' left of centerline, up to 10' AGL/ 4190' MSL. Light on antenna 1951' from DER, 879' left of centerline, 84' AGL/4244' MSL. **Rwy 31,** multiple poles, beginning 74' from DER, 237' right of centerline, up to 20' AGL/ 4200' MSL. Bush 5787' from DER, 1441' right of centerline, 13' MSL/4363' MSL. Railroad 735' from DER, 314' right of centerline 30' AGL/4202' MSL. Road 207' from DER, 254' right of centerline, 15' AGL/4187' MSL.

NEWPORT, OR

NEWPORT MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, NA. **Rwy 16**, 500-2 or std. with a min. climb of 310' per NM to 800.

DEPARTURE PROCEDURE: **Rwy 2,** NA. **Rwy 16,** turn right. **Rwy 34**, turn left. Aircraft departing via ONP R-180 CW R-320 depart on course. All others continue climbing via ONP R-200 to 1500 then climbing left turn direct ONP VORTAC. Cross ONP VORTAC at or above 2200.

NORTH BEND, OR

SOUTHWEST OREGON RGNL (OTH)

AMDT 5 10154 (FAA)

TAKE-OFF MINIMUMS: **Rwy 4,** std. with a min. climb of 475' per NM to 1200 or 900-3 with a min. climb of 300' per NM to 900 or 1600-2½ for climb in visual conditions. **Rwy 13,** 400-2½ with a min. climb of 250' per NM to 2500 or 1600-2½ for climb in visual conditions. **Rwy 31,** 300-1¾ or std. with a min. climb of 280' per NM to 300.

DEPARTURE PROCEDURE: **Rwy 4,** climb heading 043° to intercept OTH VORTAC R-337 northwest bound to 1800 before proceeding on course, or for climb in visual conditions cross Southwest Oregon Rgnl airport at or above 1500 before proceeding on course. **Rwy 13,** climb heading 132° to 1300 before proceeding on course, or for climb in visual conditions cross Southwest Oregon Rgnl airport at or above 1500 before proceeding on course. **Rwy 22,** climb heading 223° to 700 before proceeding on course. **Rwy 31,** climb heading 312° to 800 before proceeding on course.

NOTE: **Rwy 4,** Obstruction light on antenna 383' from DER, 207' right of centerline, 22' AGL/35' MSL. Ship 1000' from DER, on centerline, up to 140' MSL. Obstruction lights on bridge beginning 1886' from DER, 621' left of centerline, up to 93' AGL/93' MSL. Bridge beginning 4728' from DER, 580' right of centerline, 265' AGL/265' MSL. Obstruction lights on bridge beginning 4741' from DER, 948' right of centerline, up to 268' AGL/ 268' MSL. Transmission tower 5031' from DER, 677' right of centerline, 213' AGL/216' MSL. Trees beginning 1.2 NM from DER, 409' left of centerline, up to 150' AGL/549' MSL. Trees beginning 1.5 NM from DER, 1396' right of centerline, up to 150' AGL/629' MSL. Buildings beginning 1.7 NM from DER, 776' left of centerline, up to 73' AGL/393' MSL. **Rwy 13,** bushes beginning 38' from DER, 175' left of centerline, up to 16' AGL/33' MSL. Vehicle on road, 193' from DER, 237' left of centerline, up to 15' AGL/30' MSL. Bush 193' from DER, 145' right of centerline, up to 20' AGL/37' MSL. Trees beginning 346' from DER, 17' right of centerline, up to 150' AGL/349' MSL. Buildings beginning 504' from DER, 243' right of centerline, up to 86' AGL/106' MSL. Trees beginning 628' from DER, 6' left of centerline, up to 150' AGL/298' MSL. Antenna on building 712' from DER, 554' right of centerline, up to 51' AGL/68' MSL. Poles beginning 880' from DER, 13' right of centerline, up to 136' AGL/236' MSL. Spire 3467' from DER, 1122' left of centerline, 55' AGL/243' MSL. Pole 1.0 NM from DER, 159' left of centerline, up to 121' AGL/221' MSL. **Rwy 22,** ship 4050' from DER, on centerline, up to 140' MSL. **Rwy 31,** ship 1000' from DER, on centerline, up to 140' MSL. Trees beginning 5037' from DER, 15' left of centerline, up to 92' AGL/232' MSL. Trees beginning 5985' from DER, 1419' right of centerline, up to 108' AGL/188' MSL.

OAK HARBOR, WA

A J EISENBERG (OKH)
ORIG-A 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 7,** 300-1. **Rwy 25,** 300-1

DEPARTURE PROCEDURE: **Rwy 7,** climb via heading 071° to 2000, then climbing right turn direct CVV VOR/DME. Continue climb on course. **Rwy 25,** climb via heading 251° to 2100, then climbing left turn direct CVV VOR/DME. Continue climb on course.

NOTE: **Rwy 7,** multiple trees beginning 1167' from DER, 212' left of centerline, up to 80' AGL/319' MSL. Multiple trees beginning 664' from DER, 208' right of centerline, up to 80' AGL/299' MSL. Fence 612' from DER, right and left of centerline, 10' AGL/229' MSL. Multiple bushes beginning 240' from DER, 64' left of centerline, up to 8' AGL/227' MSL. **Rwy 25,** cars on road 87' from DER, left and right of centerline, up to 15' AGL/174' MSL. Multiple trees beginning 2271' from DER, right and left of centerline, up to 80' AGL/279' MSL.

OLYMPIA, WA

OLYMPIA RGNL (OLM)
AMDT 5A 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwy 17**, 300-2 or std. with a min. climb of 706' per NM to 600, or 2200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8,** climb heading 085° to 1000 then climbing left turn direct OLM VORTAC, thence. . .**Rwy 17,** climb heading 172° to 1200 then climbing right turn direct OLM VORTAC, thence. . .or climb in visual conditions to cross OLM VORTAC at or above 2300, thence. . . **Rwy s 26,35,** climbing right turn direct OLM VORTAC, thence. . .

. . .continue climb in OLM VORTAC holding pattern (south, right turn, 356° inbound) to cross OLM VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 8,** multiple trees beginning 880' from DER, 214' left of centerline, up to 100' AGL/343' MSL. Multiple trees beginning 1636' from DER, 131' right of centerline, up to 100' AGL/320' MSL. **Rwy 17,** multiple trees beginning 1008' from DER, 24' left of centerline, up to 100' AGL/490' MSL. Multiple trees beginning 752' from DER, 3' right of centerline, up to 100' AGL/370' MSL. **Rwy 26,** multiple trees and WSK on building beginning 475' from DER, 595' left of centerline, up to 100' AGL/330' MSL. Multiple trees beginning 338' from DER, 339' right of centerline, up to 100' AGL/309' MSL. **Rwy 35,** multiple trees beginning 2176' from DER, 198' left of centerline, up to 100' AGL/313' MSL. Multiple trees and field light on hangar beginning 657' from DER, 621' right of centerline, up to 100' AGL/315' MSL.

OMAK, WA

OMAK

TAKE-OFF MINIMUMS: **Rwy 17,** 2200-2 or std. with a min. climb of 300' per NM to 4200. **Rwy 35,** NA.

DEPARTURE PROCEDURE: **Rwy 17,** use GETNG RNAV DEPARTURE. **Rwy 35,** NA.

ONTARIO, OR

ONTARIO MUNI (ONO)
AMDT 3 08325 (FAA)

DEPARTURE PROCEDURE: **Rwy 32**, climb to 9600 on a heading between 010° CW to 141° from departure end of runway or minimum climb of 280' per NM to 9600 for all other courses.

NOTE: **Rwy 14,** multiple trees, poles, and buildings beginning 90' from departure end of runway, 157' right of centerline up to 120' AGL/2314' MSL. Multiple trees, poles, and buildings beginning 502' from departure end of runway, 506' left of centerline up to 120' AGL/2314' MSL. **Rwy 32,** multiple trees, poles, and buildings beginning 340' from departure end of runway, 405' left of centerline up to 100' AGL/2458' MSL. Multiple trees, poles, and buildings beginning 2' from departure end of runway, 472' right of centerline up to 100' AGL/2431' MSL.

PASCO, WA

TRI-CITIES

DEPARTURE PROCEDURE: **All runways**, climb runway heading to 1000, thence... **Rwy 12**, turn left. All others turn right. **All aircraft** climb direct PSC VOR/DME before proceeding on course.

PENDLETON, OR

EASTERN OREGON RGNL AT PENDLETON (PDT)
AMDT 3 09183 (FAA)

DEPARTURE PROCEDURE: **Rwys 7, 29, 34,** climbing left turn direct PDT VORTAC, thence...

Rwys 11, 16, climbing right turn direct PDT VORTAC, thence...

Rwy 25, climb direct PDT VORTAC, thence...

...continue climb in PDT VORTAC holding pattern (West, left turn, 073° inbound) to cross PDT VORTAC at or above MEA before proceeding on course.

NOTE: **Rwy 16,** multiple trees beginning 232' from DER, 348' right of centerline, up to 100' AGL/1579' MSL. **Rwy 25,** multiple antennas and terrain beginning 203' from DER, 259' left of centerline, up to 13' AGL/1512' MSL. **Rwy 29,** terrain 189' from DER, 247' left of centerline, 1493' MSL.

PINEDALE, WY

PINEDALE/RALPH WENZ FIELD (PNA)
AMDT 2 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 29,** std. with a min. climb of 310' per NM to 8300, or 4900-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 11,** climbing right turn to 10000 via heading 190° and BPI R-040 to BPI VOR/DME before proceeding on course. **Rwy 29,** climbing left turn to 10000 via heading 230° and BPI R-020 to BPI VOR/DME before proceeding on course or for climb in visual conditions: cross Pinedale/Ralph Wenz Field at or above 11800 before proceeding on course.

PLENTYWOOD, MT

SHER-WOOD

NOTE: **Rwy 12,** multiple bushes beginning 47' from departure end of runway, 71' left of centerline, up to 12' AGL/2251' MSL. Multiple bushes beginning 362' from departure end of runway, 514' right of centerline, up to 12' AGL/ 2251' MSL. **Rwy 30,** multiple bushes and road beginning 68' from departure end of runway, 75' right of centerline, up to 12' AGL/2303' MSL. Multiple bushes beginning 217' from departure end of runway, 60' left of centerline, up to 12' AGL/2296' MSL.

POCATELLO, ID

POCATELLO RGNL (PIH)

AMDT 7 09351 (FAA)

DEPARTURE PROCEDURE: use KNURL ONE DEPARTURE.

POLSON, MT

POLSON

TAKE-OFF MINIMUMS: **Rwy 18**, N/A-extremely precipitous terrain. **Rwy 36**, standard with a min. climb of 270' per NM to 8400'.

DEPARTURE PROCEDURE: **Rwy 36**, Use ANGIL RNAV DEPARTURE.

NOTES: **Rwy 36**, Road 509' from departure end of runway, 2955' MSL. Trees 2.39 NM from departure end of runway, 3383' left of centerline, 100' AGL/3179 MSL. Rapidly rising precipitous terrain left and right of centerline running along southern Flathead River ridges.

PORT ANGELES, WA

PORT ANGELES CGAS

DEPARTURE PROCEDURE: Copter departure, climb from landing area direct to EDIZ HOOK NDB. Continue climb in holding pattern (NE, right turns, 237° inbound) to MEA for direction of flight.

WILLIAM R FAIRCHILD INTL

DEPARTURE PROCEDURE: **Rwys 8,13, 26, 31**, use WATTR FIVE DEPARTURE.

PORTLAND, OR

PORTLAND INTL (PDX)

AMDT 6 09015 (FAA)

TAKE-OFF MINIMUMS: **Rwy 3,** 500-3 or std. w/ min. climb of 400' per NM to 600. **Rwy 10L/R,** std. w/ min. climb of 270' per NM to 2900. **Rwy 21,** std. w/ min. of 310' per NM to 1800.

DEPARTURE PROCEDURE: **Rwy 3,** climb heading 025° to 700, then climbing left turn direct BTG VORTAC, thence ... **Rwys 10L,10R,** climb heading 099° to 500, then climbing left turn direct BTG VORTAC, thence ...**Rwy 21,** climb heading 205.03 to 500, then climbing right turn direct BTG VORTAC, thence ... **Rwys 28L,28R,** climb heading 279° to 500, then climbing right turn direct BTG VORTAC, thence ...

... continue climb in BTG VORTAC holding pattern (hold NW, right turns, 149° inbound) to cross BTG VORTAC at or above MCA/MEA before proceeding on course.

NOTE: **Rwy 3,** signs, tower, trees, and vehicle on road beginning 468' from departure end of runway, 28' left of centerline, up to 100' AGL/449' MSL. Poles, trees, and vehicle on road beginning 609' from departure end of runway, 7' left of centerline, up to 100' AGL/416' MSL. **Rwy 10L,** rising terrain and vehicle on road beginning 7' from departure end of runway, 376' left of centerline, up to 17' AGL/60' MSL. **Rwy 10R,** pole 1996' from departure end of runway, 758' right of centerline, 54' AGL/74' MSL. note: **Rwy 21,** trees beginning 1319' from departure end of runway,155' right of centerline, up to 100' AGL/318' MSL. Poles and trees beginning 353' from departure end of runway, 36' left of centerline, up to 100' AGL/317' MSL. **Rwy 28L,** trees 1873' from departure end of runway, 836' left of centerline, 50' AGL/ 88' MSL.

Rwy 28R, multiple signs, poles, and vehicle on road beginning 876' from departure end of runway, 654' right of centerline, up to 27' AGL/69' MSL.

PORTLAND, OR (CON'T)

PORTLAND-HILLSBORO (HIO)
AMDT 6 10154 (FAA)

TAKE-OFF MINIMUMS: **Rwy 2,** std. w/ min. climb of 215' per NM to 1900 or 1200-3 for climb in visual conditions. **Rwy 30**, std. w/ min. climb of 235' per NM to 2700 or 1200-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn direct UBG VOR/DME… **Rwy 20,** climbing left turn direct UBG VOR/DME… **Rwys 2, 30,** climbing left turn direct UBG VOR/DME, or for climb in visual conditions cross Portland-Hillsboro airport at or above 1600 then proceed direct UBG VOR/DME…

…all aircraft climb in UBG VOR/DME holding pattern (West, right turns, 108° inbound) to cross UBG VOR/DME at or above MEA/MCA for direction of flight before proceeding on course.

NOTE: **Rwy 2,** vehicle on road 247' from DER, 1' right of centerline, up to 15' AGL/220' MSL. Terrain left and right of centerline beginning at DER up to 302' MSL. **Rwy 12,** terrain left and right of centerline beginning at DER up to 296' MSL. Trees 1836' from DER, 8' left of centerline, up to 125' AGL/331' MSL. **Rwy 20,** terrain left and right of centerline beginning at DER up to 306' MSL. Trees and hangers beginning 60' from DER, 32' left of centerline, up to 93' AGL/311' MSL. Trees, antennas and buildings beginning 564' from DER, 411' right of centerline, up to 74' AGL/280' MSL. **Rwy 30,** terrain left and right of centerline beginning at DER up to 292' MSL. Trees beginning 1664' from DER, 626' right of centerline, up to 194' AGL/363' MSL.

PORTLAND-TROUTDALE

TAKE-OFF MINIMUMS: **Rwy 7,** 3600-2 or std. with a min. climb of 380' per NM to 4100. **Rwy 25**, 900-2 or std. with a min. climb of 360' per NM to 1000.

DEPARTURE PROCEDURE: **Rwy 7**, turn left. **Rwy 25**, turn right. **All aircraft** climb via BTG R-125 direct BTG VORTAC. Continue climb on BTG R-329 within 10 NM to cross BTG VORTAC at or above: BTG R-355 CW R-055 or R-085 CW R-115 5000; all others 2500.

POWELL, WY

POWELL MUNI

TAKE-OFF MINIMUMS: **Rwy 3,16,21,34**, NA.

DEPARTURE PROCEDURE: **Rwy 13**, turn right. **Rwy 31**, turn left. **All aircraft** climb direct COD VOR/DME. Aircraft departing COD R-350 CW R-170 climb on course. All others continue climb in COD VOR/DME holding pattern (N, left turns, 189° inbound) to cross COD VOR/DME at or above 8800

PRINEVILLE, OR

PRINEVILLE (S39)
AMDT 1 08213 (FAA)

TAKE-OFF MINIMUMS: **Rwy 10,** std. w/ min. climb of 350 feet per NM to 6500, or 2400-3 for climb in visual conditions. **Rwy 15,** std. w/ min. climb of 470' per NM to 6200, or 2400-3 for climb in visual conditions. **Rwy 28,** std. w/ min. climb of 450' per NM to 6700, or 2400-3 for climb in visual conditions. **Rwy 33,** std. w/ min. climb of 380' per NM to 6700, or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 10**, climb heading 102° to 6500 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course. **Rwy 15,** climb heading 154° to 6200 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course. **Rwy 28,** climb heading 282° to 6700 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course. **Rwy 33,** climb heading 334° to 6700 before proceeding on course or for climb in visual conditions cross Prineville Muni airport at or above 5600 before proceeding on course.

NOTE: **Rwy 10,** trees beginning 2693' from departure end of runway, 545' right of centerline, up to 100' AGL/3339' MSL. **Rwy 15,** trees beginning 1129' from departure end of runway, 697' right of centerline, up to 100' AGL/3319' MSL. **Rwy 28,** trees beginning 1803' from departure end of runway, 74' right of centerline, up to 100' AGL/3319' MSL. **Rwy 33,** trees beginning 2636' from departure end of runway, 379' right of centerline, up to 100' AGL/ 3319' MSL.

PULLMAN-MOSCOW, WA

PULLMAN-MOSCOW RGNL

TAKE-OFF MINIMUMS: **Rwy 5,** 300-1¼ with a min. climb of 278' per NM to 4400, or 4600-3 for climb in visual conditions. **Rwy 23**, 300-1 or std. with a min. climb of 361' per NM to 4700.

DEPARTURE PROCEDURE: **Rwy 5,** climbing left turn direct PUW VOR/DME, cross PUW VOR/DME at or above 4700, continue climb in PUW VOR/DME holding pattern (SW, left turn, 032° inbound) to cross PUW VOR/DME at or above MEA for direction of flight, or for climb in visual conditions; cross Pullman-Moscow Rgnl at or above 4500. **Rwy 23,** climbing left turn via PUW VOR/DME R-021, cross PUW VOR/DME at or above 4700, continue climb in PUW VOR/DME holding pattern (SW, left turn, 032° inbound) to cross PUW VOR/DME at or above MEA for direction of flight.

NOTE: **Rwy 5,** multiple trees and terrain left and right of centerline, beginning 614' from departure end of runway, 424' right of centerline up to 50' AGL/2677' MSL. Terrain 3503' from departure end of runway, 770' left of centerline, 50' AGL/2608' MSL. **Rwy 23,** multiple trees, terrain, fences, poles, and tanks beginning 669' from departure end of runway, 412' right of centerline, up to 52' AGL/2769' MSL.

PUYALLUP, WA

PIERCE COUNTY-THUN FIELD (PLU)
AMDT 1A 09071 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16, 34,** 300-1.

DEPARTURE PROCEDURE: **Rwy 16,** climbing right turn. **Rwy 34,** climb runway heading. **All aircraft** climb via SEA R-158 to COTNY INT/SEA 18.1 DME. Continue in COTNY holding pattern (Hold S, left turns, 338° inbound) to depart COTNY at or above: 001° CW 090° 3500, 090° 3500, 091° CW 120° 10,400, 121° CW 170° 2700, 171° CW 360° 1500.

NOTE: **Rwy 16,** light pole 511' from DER, 567' right of centerline, 40' AGL/552' MSL. Multiple poles on building beginning 187' from DER, 416' left of centerline, up to 575' MSL. Multiple trees beginning 363' from DER, 656' left of centerline to 540' right of centerline, up to 662' MSL. Vehicles on road beginning 1149' from DER, 512' right of centerline, up to 15' AGL/582' MSL. Terrain beginning 1293' from DER, 529' left of centerline to 352' right of centerline, up to 581' MSL. Pipe 1520' from DER, 303' left of centerline, 574' MSL. **Rwy 34,** multiple trees beginning 58' from DER, 591' left of centerline to 1029' right of centerline, up to 694' MSL. Flagpole 1155' from DER, 464' left of centerline, 578' MSL. Building 564' from DER, 410' left of centerline, 555' MSL.

RAWLINS, WY

RAWLINS MUNI/HARVEY FIELD

TAKE-OFF MINIMUMS: **Rwy 4**, 600-2 or std. with a min. climb of 440' per NM to 7500. **Rwy 22**, 1500-2 or std. with a min climb of 365' per NM to 8700. **Rwys 10, 28**, NA.

DEPARTURE PROCEDURE: **Rwy 4,** turn right. **Rwy 22**, turn left. Climb to 10000 via RWL R-200 and CKW R-080 to CKW VOR/DME then via assigned route. Aircraft departing eastbound V4 or V6 climb via RWL R-200 to assigned route then climb on course.

REDMOND, OR

ROBERTS FIELD (RDM)
AMDT 5 09183 (FAA)

TAKE-OFF MINIMUMS: **Rwy 22,** std. w/ min. climb of 269' per NM to 4700. **Rwy 28,** std. w/ min. climb of 276' per NM to 4800.

DEPARTURE PROCEDURE: **Rwy 4,** climbing left turn via heading 265° and DSD R-047 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course. **Rwy 10,** climbing right turn via heading 240° and DSD R-090 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course. **Rwy 22,** climb heading 222° and DSD R-090 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course. **Rwy 28,** climbing left turn via heading 275° and DSD R-045 to DSD VORTAC, climb in DSD VORTAC holding pattern (hold North, right turn, 168° inbound) to cross DSD VORTAC at or above MEA for route of flight before proceeding on course.

NOTE: **Rwy 28,** numerous trees beginning 1' from DER, 356' right of centerline, 12' AGL/3079' MSL. Tree 364' from DER, 448' left of centerline, 15' AGL/3054' MSL.

RENTON, WA

RENTON MUNI (RNT)
AMDT 7 09351 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, std. with a min. climb of 405' per NM to 800, or 1100-2½ for climb in visual conditions. **Rwy 34**, 500-2¾ or std. with a min. climb of 315' per NM to 700.

DEPARTURE PROCEDURE: **Rwy 16,** climb heading 157° to 700, then climbing right turn direct SEA VORTAC, thence..., or for climb in visual conditions: cross Renton Muni Airport westbound at or above 1000 MSL, then proceed on SEA R-029 to SEA VORTAC, thence... **Rwy 34,** Climb heading 337° to 700, then climbing left turn direct SEA VORTAC thence ...
...Climb in SEA VORTAC holding pattern (East, left turns, 290° inbound) to cross SEA VORTAC at or above MEA/MCA for direction of flight.

NOTES: **Rwy 16,** trees, towers, lights and blast shield beginning 185' from DER, 4' left of centerline, up to 100' AGL/574' MSL. Trees, lights and sign beginning 40' from DER, 54' right of centerline, up to 100' AGL/297' MSL. **Rwy 34,** Trees and terrain beginning 1.6 NM from DER, 104' left of centerline, up to 100' AGL/485' MSL. Trees, terrain and wood piling beginning 75' from DER, 7' right of centerline, up to 100' AGL/426' MSL.

REXBURG, ID

REXBURG-MADISON COUNTY

DEPARTURE PROCEDURE: **Rwy 17**, climbing right turn. **Rwy 35,** climbing left turn. **All aircraft** climb via IDA VOR/DME R-015 to RIGBY Int to MEA for route of flight before proceeding on course.

NOTE: **Rwy 17,** 100' AGL trees 125' from departure end of runway, 350' left of centerline. **Rwy 35,** 100' AGL trees 350' from departure end of runway, 450' right of centerline. 100' AGL trees 750' from departure end of runway, 500' left of centerline.

RICHLAND, WA

RICHLAND (RLD)
AMDT 8 10154 (FAA)

TAKE-OFF MINIMUMS: **Rwys 1, 8,** std. w/ min. climb of 310' per NM to 5000. **Rwy 19,** std. w/ min. climb of 480' per NM to 5000. **Rwy 26,** std. w/ min. climb of 350' per NM to 5000.

DEPARTURE PROCEDURE: **Rwys 1,8,** climbing left turn heading 220° and PSC R-269 to 6000 to PAPPS INT /PSC 32.72 DME before proceeding on course. **Rwy 19,** climbing right turn heading 310° and PSC R-269 to 6000 to PAPPS INT/PSC 32.72 DME before proceeding on course. **Rwy 26,** climb heading 310° and PSC R-269 to 6000 to PAPPS INT/PSC 32.72 DME before proceeding on course.

NOTE: **Rwy 1,** crane 4957' from DER, 1271' right of centerline, up to 120' AGL/520' MSL. Poles beginning 752' from DER, 446' right of centerline, up to 20' AGL/416' MSL. Trees beginning 43' from DER, 102' left of centerline, up to 25' AGL/424' MSL. Multiple trees 184' from DER, 162' right of centerline, up to 25' AGL/424' MSL. **Rwy 8,** railroad beginning 181' from DER, left to right of centerline, up to 23' AGL/412' MSL. Sign 23' from DER, 122' right of centerline, up to 4' AGL/391' MSL. Trees beginning 1142' from DER, 12' right of centerline, up to 25' AGL/454' MSL. Trees beginning 2240' from DER, 94' left of centerline, up to 25' AGL/456' MSL. **Rwy 19,** bushes beginning 22' from DER, 297' left of centerline, up to 7' AGL/401' MSL. Trees beginning 323' from DER, 478' right of centerline, up to 25' AGL/424' MSL. Trees beginning 665' from DER, 399' left of centerline, up to 25' AGL/472' MSL. **Rwy 26,** antenna 310' from DER, 444' right of centerline, up to 7' AGL/408' MSL. Fence 458' from DER, 360' left of centerline, up to 25' AGL/425' MSL. Fence 456' from DER, 408' right of centerline, up to 25' AGL/410' MSL. Post 398' from DER, 255' right of centerline, up to 9' AGL/409' MSL. Bush 755' from DER, 257' right of centerline, up to 17' AGL/417' MSL. Ground 480' from DER, 488' right of centerline, up to 421' MSL. Trees beginning 174' from DER, 231' right of centerline, up to 25' AGL/425' MSL. Trees beginning 184' from DER, 210' left of centerline, up to 25' AGL/457' MSL.

RIVERTON, WY

RIVERTON RGNL (RIW)
AMDT 1 10042 (FAA)

DEPARTURE PROCEDURE: **Rwys 1, 10, 19, 28,** climbing right turn direct RIW VOR/DME. **All Aircraft** climb in RIW holding pattern (hold East, right turns, 287° inbound) to MEA for direction of flight.

NOTES: **Rwy 1,** sage brush beginning 35' from DER, left and right of centerline, up to 3' AGL/5499' MSL. **Rwy 10 ,** sage brush beginning 20' from DER, left and right of centerline, up to 3' AGL/5466' MSL. **Rwy 19,** sage brush beginning 49' from DER, 171' right of centerline, up to 3' AGL/5479' MSL. Windstocks beginning 154' from DER, 268' right of centerline, up to 28' AGL/5468' MSL. **Rwy 28,** sage brush, tower, and pole beginning 54' from DER, 154' right of centerline, up to 59' AGL/5679' MSL. Sage brush, fence, and poles beginning 132' from DER, 27' left of centerline, up to 67' AGL/5647' MSL.

ROCK SPRINGS, WY

ROCK SPRINGS-SWEETWATER COUNTY (RKS)
AMDT 6 10098 (FAA)

DEPARTURE PROCEDURE: **Rwy 3,** climb heading 032° to 8000 then climbing left turn direct OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight. **Rwy 9,** climb heading 090° to 8200 then climbing left turn direct OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight. **Rwy 21,** climb heading 212° to 8400, then climbing right turn direct OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight. **Rwy 27,** climb heading 270° to 7900, then climibing right turn via OCS R-291 to OCS VOR/DME, continue climb in OCS VOR/DME holding pattern (hold East, right turns, 260° inbound) to cross OCS VOR/DME at or above MEA for route of flight.

NOTE: **Rwy 3,** vehicle on road beginning 22' from DER, 120' left of centerline, up to 20' AGL/6760' MSL, bushes beginning 178' from DER, 517' right of centerline, up to 15' AGL/6755' MSL. **Rwy 21,** bush 53' from DER, 221' left of centerline, 15' AGL/6737' MSL.

RONAN, MT

RONAN (7S0)
ORIG 09295 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16,** std. w/ min. climb of 260' per NM to 9900 or 6100-3 for climb in visual conditions. **Rwy 34,** std. w/ min. climb of 250' per NM to 9900 or 6100-3 in visual conditions.

DEPARTURE PROCEDURE: **Rwy 16,** climb to 8800 on a heading between 177° CW to 336° from DER or for climb in visual conditions, cross Ronan airport at or above 9000 before proceeding on course. **Rwy 34,** climb to 8800 on a heading between 336° CCW to 177° from DER or for climb in visual conditions, cross Ronan airport at or above 9000 before proceeding on course.

NOTE: **Rwy 16,** tree 485' from DER, 386' left of centerline 50' AGL/3149' MSL. **Rwy 34,** building 158' from DER, 370' left of centerline 40' AGL/3130' MSL. Tree 1358' from DER, 556' left of centerline 50' AGL/3149' MSL.

ROSEBURG, OR

ROSEBURG RGNL (RBG)
AMDT 5A 08297 (FAA)

TAKE-OFF MINIMUMS: **Rwy 16**, std. with a min. climb of 642' per NM to 2000, or 1700-3 for climb in visual conditions. **Rwy 34,** std. with a min. climb of 760' per NM to 2000, or 1700-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 16,** climb direct RBG VOR/DME, or climb in visual conditions to cross Roseburg Airport southbound at or above 2200, then direct RBG VOR/DME. Then via RBG R-157 and right turn direct RBG VOR/DME to cross at or above the MCA or MEA for route of flight. **Rwy 34,** climb via heading 342° to 4000, or climb in visual conditions to cross Roseburg Airport northbound at or above 2200 and then via heading 342° to 4000. Then climbing left turn direct RBG VOR/DME, to cross RBG VOR/DME at or above MCA or MEA for route of flight. Aircraft that have not reached the MCA or MEA for route of flight continue climb via RBG R-157 and right turn direct RBG VOR/DME.

NOTE: **Rwy 16,** tower 1.56 NM from departure end of runway, 2231' right of centerline, 50' AGL/1201' MSL, tree 1.47 NM from departure end of runway, 1560' right of centerline, 21' AGL/980' MSL, tree 1.46 NM from departure end of runway, 1298' right of runway centerline, 45' AGL/964' MSL, pole 1.36 NM from departure end of runway, 921' right of centerline, 75' AGL/914' MSL, rod on airway beacon 1.29 NM from departure end of runway, 409' right of centerline, 52' AGL/891' MSL, tree 655' from departure end of runway, 347' right of runway centerline, 93' AGL/593' MSL, obstruction light on pole 691' from departure end of runway, 187' right of runway centerline, 117' AGL/557' MSL. **Rwy 34,** tree 1.10 NM from departure end of runway, 2003' left of runway centerline, 60' AGL/1179' MSL. Tree 5165' from departure end of runway, 1744' left of centerline, 64' AGL/1023' MSL. Obstruction light on pole 4850' from departure end of runway, 56' left of centerline, 15' AGL/894' MSL. Tree 4785' from depature end of runway, 48' left of runway centerline, 23' AGL/862' MSL. Tree 1.41 NM from departure end of runway, 1826' left of runway centerline, 17' AGL/896' MSL. Tree 4079' from departure end of runway, 508' left of runway centerline, 21' AGL/780' MSL. Tree 5067' from departure end of runway, 265' right of centerline, 43' AGL/802' MSL. Tree 4260' from departure end of runway, 345' right of centerline, 42' AGL/761' MSL. Tree 1465' from departure end of runway 329' right of runway centerline, 100' AGL/642' MSL. Tree 913' from departure end of runway, 217' right of runway centerline, 100' AGL/622' MSL. Tree 647' from departure end of runway, 345' right of runway centerline, 100' AGL/615' MSL. Hill 1065' from departure end of runway, 299' right of runway centerline 608' MSL. Trees beginning 60' from departure end of runway, 117' left of runway centerline, up to 16' AGL/554' MSL. Trees beginning 242' from departure end of runway, 209' right of runway centerline, up to 56' AGL/584' MSL. Vehicle on road 265' from departure end of runway, 229' right of runway centerline, 15' AGL/560' MSL. Multiple signs beginning 792' from departure end of runway, 550' left of runway centerline, up to 60' AGL/565' MSL. Bush 94' from departure end of runway, 228' right of runway centerline, 19' AGL/547' MSL. Bush 202' from departure end of runway, 92' left of centerline, 7' AGL/535' MSL. Pole 640' from departure end of runway, 354' left of runway centerline, 29' AGL/557' MSL.

SALEM, OR

MCNARY FIELD

TAKE-OFF MINIMUMS: **Rwy 13**, 600-2 or std. with a min. climb of 240' per NM to 800. **Rwy 16**, 600-2 or std. with a min. climb of 340' per NM to 800.

DEPARTURE PROCEDURE: Comply with SIDs or; **Rwys 31, 34**, turn right. **Rwy 16**, turn left. **Rwy 13**, climb heading 130°. **All aircraft** climb direct TURNO LOM/Int. Continue climb in holding (SE, left turns, 310° inbound) to cross TURNO LOM/INT at or above MEA for route of flight.

SALMON, ID

LEMHI COUNTY

TAKE-OFF MINIMUMS: **Rwy 17,** NA. **Rwy 35,** 4300-5 or std. with a min. climb of 390' per NM to 8000.

DEPARTURE PROCEDURE: **Rwy 17,** NA. **Rwy 35,** climb runway heading to 8000, then climbing left turn to 11,300 direct LKT VOR/DME before proceeding on course.

SANDPOINT, ID

SANDPOINT

TAKE-OFF MINIMUMS: **Rwy 1,** 4200-2 or std. with a min. climb of 520' per NM to 5800. **Rwy 19,** 2200-2 or std. with a min. climb of 480' per NM to 4600.

DEPARTURE PROCEDURE: **Rwy 1,** climbing right turn to COE VOR/DME via heading 200° and COE R-002. **Rwy 19,** climbing left turn to COE VOR/DME via heading 140° and COE R-002.

SARATOGA, WY

SHIVELY FIELD

TAKE-OFF MINIMUMS: **Rwy 23,** 400-1 or std. with a min. climb of 220' per NM to 7400.

DEPARTURE PROCEDURE: **Rwy 5,** turn left heading 280°. **Rwy 23,** turn right heading 340°. **All aircraft** climb to 9000 via 310° bearing from SAA NDB then continue climb on course.

SCAPPOOSE, OR

SCAPPOOSE INDUSTRIAL AIRPARK

DEPARTURE PROCEDURE: **Rwy 15**, climbing left turn direct BTG VORTAC. **Rwy 33,** climbing right turn direct BTG VORTAC. Aircraft departing BTG R-160 CW R-329 climbing left turn on course. All others climb in BTG VORTAC holding pattern (NW, right turns, 149° inbound) to cross BTG VORTAC at or above MEA/MCA for direction of flight.

NOTE: **Rwy 15,** 158' MSL tree 470' from departure end of runway, 499' right of centerline. **Rwy 33,** cross departure end of runway 33 at or above 35' AGL/90' MSL. 130' MSL tree 613' from departure end of runway, 414' right of centerline; 142' MSL trees 1343' from departure end of runway, 348' right of centerline.

SCOBEY, MT

SCOBEY

TAKE-OFF MINIMUMS: **Rwy 12,** std. with a min. climb of 280' per NM to 3400.

SEATTLE, WA

BOEING FIELD/KING COUNTY INTL

TAKE-OFF MINIMUMS: **Rwy 13L,** 500-3 w/ min. climb of 232' per NM to 800, or 1000-2½ for climb in visual conditions. **Rwy 13R,** std. w/ a min. climb of 476' per NM to 900, or 500-3 w/ a min. climb of 386' per NM to 900, or 1000-2½ for climb in visual conditions. **Rwy 31L,** std. w/ a min. climb of 386' per NM to 800, or 300-1½ w/ min. climb of 235' per NM to 800, or 1000-2 ½ for climb in visual conditions. **Rwy 31R,** std. w/ a min. climb of 334' per NM to 900, or 400-1¾ w/ min. climb of 216' per NM to 900, or 1000-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 13L/R,** climbing right turn. **Rwys 31L/R,** climbing left turn. All aircraft climb direct to SEA VORTAC, continue climb in SEA VORTAC holding pattern (hold east, left turns, 290° inbound) to cross SEA VORTAC at or above 3000. For climb in visual conditions cross Boeing Field/King County Intl Airport at or above 900, then climb to 3000 via SEA R-344 to SEA VORTAC, continue climb in SEA VORTAC holding pattern (hold east, left turns, 290° inbound) to cross SEA VORTAC at or above 3000.

NOTES: **Rwy 13L,** multiple trees, towers, antennas and building beginning 402' from departure end of runway, 411' left of centerline, up to 127' AGL/479' MSL. **Rwy13R,** multiple trees and poles beginning 35' from departure end of runway, 154' left of centerline, up to 66' AGL/485' MSL. Multiple trees and poles beginning 501' from departure end of runway, 3' right of centerline, up to 77' AGL/195' MSL. **Rwy 31L,** multiple trees, fence, and building beginning 250' from departure end of runway, 253' left of centerline, up to 71' AGL/101' MSL. Multiple trees and floodlights beginning 1245' from departure end of runway, 447' right of centerline, up to 71' AGL/239' MSL. **Rwy31R,** multiple trees, hangers, towers, poles and building beginning 12' from departure end of runway, 389' right of centerline, up to 103' AGL/350' MSL. Multiple obstruction lights beginning 214' from departure end of runway, 99' left of centerline, up to 71' AGL/101' MSL.

SEATTLE-TACOMA INTL (SEA)
AMDT 4 08325 (FAA)

DEPARTURE PROCEDURE: **Rwys 16L, 16C, 16R,** climb to 1000 via heading 163°, then climbing right turn direct SEA VORTAC, thence...
Rwys 34L, 34C, 34R, climb to 1000 via heading 343°, then climbing left turn direct SEA VORTAC, thence...
...climb in SEA VORTAC holding pattern (hold SE, left turns, 310° inbound) to MEA/MCA for route of flight.

NOTE: **Rwy 16L,** trees beginning 2908' from departure end of runway, 1064' right of centerline, up to 100' AGL/476' MSL. **Rwy 16C,** trees beginning 4477' from departure end of runway, 484' right of centerline, up to 100' AGL/507' MSL. **Rwy 16R,** trees, antenna on building and light pole beginning 488' from departure end of runway, 436' left of centelrine, up to 100' AGL/507' MSL. Trees beginning 1137' from departure end of runway, 587' right of centerline, up to 100' AGL/468' MSL. **Rwy 34L,** fence 189' from departure end of runway, 401' right of centerline, up to 12' AGL/420' MSL. Trees beginning 4010' from departure end of runway, 857' left of centerline, up to 100' AGL/522' MSL.

SHELBY, MT

SHELBY

TAKE-OFF MINIMUMS: **Rwy 5,** 200-1¼ or std. w/ min. climb of 212' per NM to 3700, or alternatively, w/ std. takeoff minimums and a normal 200'/NM climb gradient, takeoff must occur no later than 1300' prior to departure end of runway.

NOTE: **Rwy 5,** fence post 320' from departure end of runway, 162' right of centerline, 12' AGL/3455' MSL, truck on road beginning 515' from departure end of runway, 632' right of centerline, 17' AGL/3498' MSL, tree 1 NM from departure end of runway, 1242' left of centerline, 75' AGL/3604' MSL. **Rwy 11,** truck on road 906' from departure end of runway, 691' left of centerline, 17' AGL/3456' MSL, tree 1697' from departure end of runway, 26' right of centerline, 75' AGL/3495' MSL, tree 1561' from departure end of runway, 322' left of centerline, 75' AGL/3514' MSL, light standard 852' from departure end of runway, 174' left of centerline, 22' AGL/3451' MSL.

SHELTON, WA

SANDERSON FIELD

TAKE-OFF MINIMUMS: **Rwy 5,** std. w/ a min. climb of 312' per NM to 4000, or 1500-2½ for a climb in visual conditions. **Rwy 23**, std. w/ a min. climb of 414' per NM to 4000, or 1500-2½ for a climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 5,** climbing right turn to intercept SEA R-230 to CARRO intersection. Or for climb in visual conditions: Cross Sanderson Field northeast bound at or above 1600, thence via SEA R-230 to cross CARRO intersection at or above 4000. **Rwy 23,** climbing left turn to intercept SEA R-230 to CARRO intersection. Or for climb in visual conditions: Cross Sanderson Field northeast bound at or above 1600, thence via SEA R-230 to cross CARRO intersection at or above 4000.

NOTE: **Rwy 5,** multiple trees beginning 550' from departure end of runway, 107' left of centerline, up to 94' AGL/366' MSL. Multiple trees beginning 130' from departure end of runway, 70' right of centerline, up to 80' AGL/352' MSL. **Rwy 23,** multiple trees beginning 52' from departure end of runway, 149'left of centerline, up to 72' AGL/330' MSL. Multiple trees beginning 886' from departure end of runway, 153' right of centerline, up to 155' AGL/486' MSL.

SHERIDAN, WY

SHERIDAN COUNTY

TAKE-OFF MINIMUMS: **Rwy 5,** 700-3 or std. w/ min. climb of 318' per NM to 5100, or. . .**Rwy 14,** 800-3 or std. w/ min. climb of 263' per NM to 5100, or. . .**Rwy 23,** 900-3 or std. w/ min. climb of 348' per NM to 5100, or. . .

. . .1400/3 for climb in visual conditions. Climb in visual conditions NA at night.

DEPARTURE PROCEDURE: **Rwy 5,** climbing left turn via SHR R-106 to SHR VORTAC, or climb in visual conditions to cross Sheridan County Airport northwestbound at or above 5300, then via SHR R-126 to SHR VORTAC, thence. . .**Rwy 14,** climbing left turn via heading 320° and SHR R-106 to SHR VORTAC, or climb in visual conditions to cross Sheridan County Airport northwestbound at or above 5300, then via SHR R-126 to SHR VORTAC, thence. . .**Rwy 23,** climbing right turn via SHR R-153 to SHR VORTAC, or climb in visual conditions to cross Sheridan County Airport northwestbound at or above 5300, then via SHR R-126 to SHR VORTAC, thence. . .**Rwy 32,** climb via heading 320° and SHR R-106 to SHR VORTAC, thence. . .

. . .climb in holding pattern (hold northwest, left turn, 133° inbound) to cross SHR VORTAC at or above airway MEA for route of flight.

NOTE: **Rwy 5,** multiple trees beginning 101' from departure end of runway, 188' left of centerline, up to 80' AGL/3991' MSL. **Rwy 23,** fence 1201' from departure end of runway, 10' left of centerline, 20' AGL/4060' MSL. Building 1949' from departure end of runway, 415' left of centerline, 17' AGL/4077' MSL. Tree 3337' from departure end of runway, 391' right of centerline, 43' AGL/4143' MSL. **Rwy 32,** antenna 53' from departure end of runway, 398' right of centerline, 20' AGL/4020' MSL.

SIDNEY, MT

SIDNEY-RICHLAND MUNI

TAKE-OFF MINIMUMS: **Rwy 28**, 400-2 or std. with a min. climb of 260' per NM to 2300.

SNOHOMISH, WA

HARVEY FIELD (S43)

ORIG 09127 (FAA)

TAKE-OFF MINIMUMS: **Rwys 15R, 33L**, NA-obstacles. **Rwy 15L,** std. w/ min. climb of 353' per NM to 1100, or 1200-2½ for climb in visual conditions. **Rwy 33R,** std. w/ min. climb of 475' per NM to 800, or 1200-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 15L,** climbing right turn on 344° course to WATON LOM, or for climb in visual conditions, cross Harvey Field at or above 1100 then proceed on 329° course to WATON LOM, thence ... **Rwy 33R,** climb on 329° course to WATON LOM, or for climb in visual conditions, cross Harvey Field at or above 1100 then proceed on 329° course to WATON LOM, thence ...

... aircraft departing WATON LOM on bearings 150° CW 340° from WATON LOM climb on course. Aircraft departing WATON LOM on bearings 340° CW 150° from WATON LOM, climb in holding pattern (South, left turns, 339° inbound) to cross WATON LOM at or above 4500 before proceeding on course.

NOTE**: Rwy 15L,** tree 81' from DER, 177' right of centerline, 40' AGL/106'MSL. Trees 685' from DER, left and right of centerline, up to 48' AGL/70' MSL. **Rwy 33R,** powerline 139' from DER, 226' left of centerline, 40' AGL/56' MSL. Tree 298' from DER, 205' right of centerline, 104' AGL/121' MSL. Tower 5708' from DER, 1956' right of centerline, 206' AGL/300' MSL.

SPOKANE, WA

FELTS FIELD (SFF)

AMDT 5 10098 (FAA)

TAKE-OFF MINIMUMS: **Rwy 3L,** std. w/ min. climb of 450' per NM to 3600, or 2300-3 for climb in visual conditions. **Rwy 3R,** std. w/ min. climb of 410' per NM to 3700, or 2300-3 for climb in visual conditions. **Rwy 21L,** std. w/ min. climb of 375' per NM to 3200, or 2300-3 for climb in visual conditions. **Rwy 21R,** std. w/ min climb of 375' per NM to 3200, or 2300-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwys 3L, 3R,** climb heading 035° to 3600, then climbing right turn heading 210° and GEG R-050 to GEG VORTAC, or for climb in visual conditions: cross Felts Field Airport at or above 4100, then via heading 165° and GEG R-050 to GEG VORTAC. Cross GEG VORTAC at or above MCA/MEA for route of flight. **Rwys 21L, 21R,** climb heading 215° to 3200, then climbing left turn heading 190° and GEG R-050 to GEG VORTAC, or for climb in visual conditions: cross Felts Field Airport at or above 4100, then via heading 165° and GEG R -050 to GEG VORTAC. Cross GEG VORTAC at or above the MCA/MEA for route of flight.

NOTE: **Rwy 3L,** trees beginning 1853' from DER, 772' right of centerline, up to 100' AGL/2037' MSL. Trees beginning 3538' from DER, 529' left of centerline, up to 100' AGL/2339' MSL. Antenna, trees and transmission poles beginning 1.5 NM from DER, 16' left of centerline, up to 100' AGL/2579' MSL. Trees beginning 2.3 NM from DER, 723' right of centerline, up to 100' AGL/2499' MSL. **Rwy 3R,** hangar, NDB, and trees beginning 92' from DER, 269' right of centerline, up to 100' AGL/2040' MSL. Trees beginning 4685' from DER, 1033' left of centerline, up to 100' AGL/2339' MSL. Antenna, trees and transmission poles beginning 1.6 NM from DER, 525' left of centerline, up to 100' AGL/2559' MSL. Trees and transmission poles beginning 2.6 NM from DER, 214' right of centerline, up to 150' AGL/2570' MSL. **Rwy 21L,** elevator, pole on building and trees beginning 315' from DER, 302' left of centerline, up to 140' AGL/2080' MSL. **Rwy 21R,** poles and trees beginning 188' from DER, 13' right of centerline, up to 100' AGL/1982' MSL. Elevator, pole, hangar, and building beginning 203' from DER, 1' left of centerline, up to 140' AGL/2080' MSL. Terrain and trees beginning 3.1 NM from DER, 4904' left of centerline, up to 100' AGL/2559' MSL.

SPOKANE INTL (GEG)

AMDT 5 10154 (FAA)

DEPARTURE PROCEDURE: **Rwys 3, 25,** climbing left turn direct GEG VORTAC, thence...**Rwys 7, 21,** climbing right turn direct GEG VORTAC, thence...

...continue climb via R-208 within 10 miles to cross GEG VORTAC at or above: northeast bound V120-448, 5200; eastbound V2, 5200; southeast through west bound climb on course.

NOTE: **Rwy 3,** multiple trees beginning 1089' from DER, 666' left of centerline, up to 100' AGL/2370' MSL. Tree 1524' from DER, 851' right of centerline, 100' AGL/2374' MSL. **Rwy 21,** pole 2655' from DER, 1122' left of centerline, 42' AGL/2446' MSL. Tree 3391' from DER, 1315' right of centerline, 100' AGL/2466' MSL.

STEVENSVILLE, MT

STEVENSVILLE

TAKE-OFF MINIMUMS: **Rwy 12,** do not exceed 210 knots until established on MSO R-163. **Rwy 30,** do not exceed 210 knots until established on MSO R-160.

DEPARTURE PROCEDURE: **Rwy 12,** climbing right turn via heading 335 and MSO R-163 to MSO VOR/DME climb in MSO VOR/DME holding pattern (southeast, right turn, 340° inbound) to 13000' before proceeding on course. **Rwy 30,** climbing right turn via heading 025° and MSO R-160 to MSO VOR/DME Climb in MSO VOR/DME holding pattern (southeast, right turn, 340° inbound) to 13000' before proceeding on course.

SUNRIVER, OR

SUNRIVER

TAKE-OFF MINIMUMS: **Rwy 18**, 300-1 or std. with a min. climb of 360' per NM to 4400. **Rwy 36,** 600-2 or std. with a min. climb of 240' per NM to 4900.

DEPARTURE PROCEDURE: **Rwy 18,** climb runway heading to 7000 then climbing left turn direct DSD VORTAC. **Rwy 36,** climb direct to DSD VORTAC. Then **all aircraft** climb on course.

TACOMA, WA

TACOMA NARROWS

TAKE-OFF MINIMUMS: **Rwy 35**, 400-1 or std. with a min. climb of 210' per NM to 400'.

DEPARTURE PROCEDURE: **Rwy 17,** turn right, climb via heading 230° to intercept OLM R-009 then direct OLM VORTAC. **Rwy 35,** turn left, climb via heading 270° to intercept SEA R-230 then direct CARRO INT. Continue climb in holding (SW, right turns, 047° inbound) to MEA or assigned altitude for route of flight.

THE DALLES, OR

COLUMBIA GORGE RGNL/THE DALLES MUNI

TAKE-OFF MINIMUMS: **Rwy 2**, CAT A,B 1100-2 or std. with a min. climb of 350' per NM to 1500. CAT C,D 2600-3 or std. with a min. climb of 475' per NM to 3100. **Rwy 7**, 900-3 or std. with a min. climb of 330' per NM to 1200. **Rwy 12**, 1400-3 or std. with a min. climb of 500' per NM to 2000. **Rwy 20**, 1800-3 or std. with a min. climb of 470' per NM to 2200. **Rwy 25**, NA. **Rwy 30**, 2900-3 or std. with a min. climb of 500' per NM to 2700.

DEPARTURE PROCEDURE: **Rwys 2,7**, climbing right turn heading 120°. **Rwy 12**, climb via runway heading. **Rwys 20, 30**, climbing left turn heading 120°. **All aircraft** intercept and climb southbound via LTJ R-165 to 3500. Then climbing left turn direct LTJ VORTAC. Continue climb in LTJ holding pattern (E, right turns, 260° inbound) to cross LTJ VORTAC at or above MCA or MEA for route of flight.

TILLAMOOK, OR

TILLAMOOK

TAKE-OFF MINIMUMS: **Rwys 1, 13, 19,** NA. **Rwy 31,** 2000-3 or std. with a min. climb of 350' per NM to 4500.

DEPARTURE PROCEDURE: **Rwys 1, 13, 19,** NA. **Rwy 31,** use FETUJ RNAV DEPARTURE.

TORRINGTON, WY

TORRINGTON MUNI (TOR)
ORIG 10042 (FAA)

NOTE: **Rwy 2,** terrain 30' from DER, 277' left of centerline, 4197' MSL. **Rwy 10,** multiple trees and fence beginning 71' from DER, 143' right of centerline, up to 14' AGL/4214' MSL. Terrain 14' from DER, 502' left of centerline, 4199' MSL. **Rwy 28,** terrain 133' from DER, 386' right of centerline, 4213' MSL.

TWIN FALLS, ID

JOSLIN FIELD-MAGIC VALLEY RGNL

TAKE-OFF MINIMUMS: **Rwy 12**, NA.

DEPARTURE PROCEDURE: Aircraft departing on TWF R-240 CW R-080 climb on course. All others climb runway heading 6000 then climbing turn direct TWF VORTAC. Climb in holding pattern (NW, right turns, 113° inbound) to MCA or MEA as appropriate for direction of flight.

VANCOUVER, WA

PEARSON FIELD (VUO)
AMDT 2 07354 (FAA)

TAKE-OFF MINIMUMS: **Rwy 8,** std. w/ min. climb of 358' per NM to 600, or 500-3 w/ min. climb of 201' per NM to 600, or 900-2½ for climb in visual conditions. **Rwy 26,** 600-3 or 900-2½ for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 8,** climb heading 079° to 500 then climbing left turn direct BTG VORTAC, thence. . . or for climb in visual conditions: cross Pearson Field at or above 800 MSL then proceed on BTG VORTAC R-179 to BTG VORTAC, thence. . .**Rwy 26,** climb heading 259° to 700 then climbing right turn direct BTG VORTAC, thence. . . or for climb in visual conditions: cross Pearson Field at or above 800 MSL then proceed on BTG VORTAC R-179 to BTG VORTAC, thence. . .

. . .continue climb in BTG VORTAC holding pattern (hold northwest, right turn, 149° inbound) to cross BTG VORTAC at or above MEA/MCA for route of flight.

NOTE: **Rwy 8,** tree 1.4 NM from departure end of runway, 1283' left of centerline, 100' AGL/395' MSL. Tree 1.7 NM from departure end of runway, 701' left of centerline, 100' AGL/401' MSL. Tree 2 NM from departure end of runway, 849' left of centerline, 100' AGL/406' MSL. Tree 2.4 NM from departure end of runway, 648' left of centerline, 100' AGL/399' MSL. **Rwy 26,** bridge 2704' from departure end of runway, 587' left of centerline, 243' AGL/245' MSL. Crane 1.5 NM from departure end of runway, 2563' right of centerline, 237' AGL/267' MSL. Transmission line tower 2.5 NM from departure end of runway, 2036' right of centerline, 516' AGL/534' MSL.

WALLA WALLA, WA

WALLA WALLA RGNL

DEPARTURE PROCEDURE: **Rwys 2,7, 20,25,34,** turn left. **Rwy 16,** turn right. **All aircraft** climb to 2500 via ALW VOR/DME R-195, then climbing right turn direct ALW VOR/DME to cross ALW VOR/DME at or above MEA or MCA for route of flight.

NOTE: **Rwy 16,** antenna 365' from departure end of runway, 97' right of centerline, 1155' MSL. Terrain 1' from departure end of runway 140' left of centerline, 1145' MSL. **Rwy 20,** light 666' from departure end of runway, 640' left of centerline, 1170' MSL. **Rwy 34,** terrain 213' from departure end of runway, 230' right of centerline, 1130' MSL.

WEISER, ID

WEISER MUNI (S87)
ORIG 08269 (FAA)

TAKE-OFF MINIMUMS: **Rwy 12,** std. w/ min. climb of 310' per NM to 3900 or 2400-3 for climb in visual conditions. **Rwy 30,** std. w/ min. climb of 360' per NM to 4000 or 2400-3 for climb in visual conditions.

DEPARTURE PROCEDURE: **Rwy 12,** climb heading 121° to 3900 before proceeding on course. **Rwy 30,** climb heading 301° to 4000 before proceeding on course

...for climb in visual conditions: cross Weiser Muni airport at or above 4400 before proceeding on course.

NOTE: **Rwy 12,** tree 248' from departure end of runway, 443' right of centerline, 100' AGL/2184' MSL. **Rwy 30,** tree 1907' from departure end of runway, 769' right of centerline, 100' AGL/2174' MSL.

WENATCHEE, WA

PANGBORN MEMORIAL

TAKE-OFF MINIMUMS: **Rwy 7**, NA. **Rwy 12,** 1500-2 or std. with a min. climb of 510' per NM to 2900. **Rwys 25, 30**, CAT A,B 1600-2 or std. with a min. climb of 360' per NM to 3100. CAT C,D 5500-3 or std. with a min. climb of 570' per NM to 7200.

DEPARTURE PROCEDURE: **Rwy 12,** climb runway heading. **Rwys 25, 30,** climbing left turn. **All aircraft** climb via EAT R-113 to 4000 then climbing left turn direct EAT VOR/DME. Aircraft departing EAT R-010 CW R-140 climb on course. All others continue climb in EAT VOR/DME holding pattern (E, right turns, 253° inbound) to cross EAT VOR/DME at or above: R-141 CW R-200 7400; R-201 CW R-009, 8200.

WEST YELLOWSTONE, MT

YELLOWSTONE

TAKE-OFF MINIMUMS: **Rwy 19**, 2200-2 or std. with a min. climb of 245' per NM to 8900. FAR 135 AUTH: **Rwy 1,** ½ mile.

DEPARTURE PROCEDURE: **Rwy 1**, turn right. **All aircraft** climb direct TARGY LOM. Aircraft departing TARGY LOM on bearing 190° CW 220° climb on course. All others climb south on bearing 190° within 10 NM of TARGY LOM turn left and continue climbing direct TARGY LOM to cross TARGY LOM at or above: bearing 360° CW 190° 9300, bearing 220° CW 360° 10500

WHEATLAND, WY

PHIFER AIRFIELD

DEPARTURE PROCEDURE: **Rwy 8,** climbing left turn to 9000 via heading 030° to intercept IIP VOR/DME R-140 to JEZZY Int, thence. . .**Rwy 26,** climbing right turn to 9000 via heading 360° and GYZ NDB course 051° to JEZZY INT, thence. . .

. . .continue climb-in-hold (hold northwest, right turn, 140° inbound) to 9000 before proceeding on course.

NOTE: **Rwy 8,** multiple trees 512' from departure end of runway, 584' left of centerline, 100' AGL/4859' MSL. **Rwy 26,** multiple trees, buildings, poles/lights, siren, roads w/ vehicles beginning 2' from departure end of runway, on centerline, to 488' left of centerline, 100' AGL/4899' MSL. Multiple trees, buildings, poles/lights, roads w/ vehicles beginning 2' from departure end of runway, on centerline to 499' right of centerline, 100' AGL/4859' MSL.

WHIDBEY ISLAND NAS (AULT FIELD) (NUW)

OAK HARBOR, WA. 07186

Diverse departures not authorized.

MILITARY DEPARTURE PROCEDURE: **Rwy 7**: Minimum climb of 430'/NM until 600. Climbing left turn to 2000, intercept NUW R-067, expect radar vectors to join assigned route. **Rwy 14**: Climbing left turn to 2000, intercept NUW R-128, expect radar vectors to join assigned route. **Rwy 25**: Climb to 2000 via heading 249°, expect radar vectors to join assigned route. **Rwy 32**: Climb to 2000 via heading 317°, expect radar vectors to join assigned route. **ALL RWYS:** If vectors are not received by 10 DME of NUW TACAN, climb to 3000, intercept the NUW 11 DME ARC to join assigned route. CIVIL DEPARTURE PROCEDURE: **Rwy 7**: Minimum climb of 270'/NM until 700. Climbing left turn to 2000 via heading 067°, expect radar vectors to join assigned route. **Rwy 14**: Climbing left turn to 2000, via heading 128°, expect radar vectors to join assigned route. **Rwy 25**: Use published DP or climb to 2000 via heading 249°, expect radar vectors to join assigned route. **Rwy 32**: Climb to 2000 via heading 317°, expect radar vectors to join assigned route. **ALL RWYS:** If vectors are not received by 10 DME of NUW TACAN, climb to 3000, proceed direct CVV VOR/DME to join assigned route. TAKEOFF OBSTACLES: **Rwy 7:** Terrain, 7813' from DER, 2469' left of centerline, 276' MSL. Trees, 4274' from DER, 5472' left of centerline, 472' MSL. Trees, 5239' from DER, 6257' left of centerline, 495' MSL. Trees, 8561' from DER, 3685' left of centerline, 426' MSL. Trees, 12,561' from DER, 4814' right of centerline, 462' MSL. Terrain, 11,843' from DER, 7129' left of centerline, 502' MSL. Trees, 15,361' from DER, 4015' right of centerline, 521' MSL.

WORLAND, WY

WORLAND MUNI

TAKE-OFF MINIMUMS: **Rwys 4, 10, 22, 28**, NA. **Rwy 16**, 300-2 or std. with a min. climb of 230' per NM to 4600.

DEPARTURE PROCEDURE: **All aircraft** climb to 5000, then direct RLY VOR/DME. Aircraft departing RLY R-061 CW R-349 climb on course. All others continue climb in RLY VOR/DME holding pattern (N, right turns, 159° inbound) to cross RLY VOR/DME at or above 7000.

YAKIMA, WA

YAKIMA AIR TERMINAL/MCALLISTER FIELD

TAKE-OFF MINIMUMS: **Rwy 4,** NA. **Rwy 9**, 800-4 or std. with a min. climb of 300' per NM to 5000. **Rwys 22,27,** 2500-3 or std. with a min. climb of 300' per NM to 5200.

DEPARTURE PROCEDURE: **Rwy 4,** NA. **Rwys 9,22,27,** Use ZILLA DEPARTURE PROCEDURE.

VOR/DME CVO 115.4 Chan 101	APP CRS 032°	Rwy ldg N/A TDZE N/A Apt Elev 223

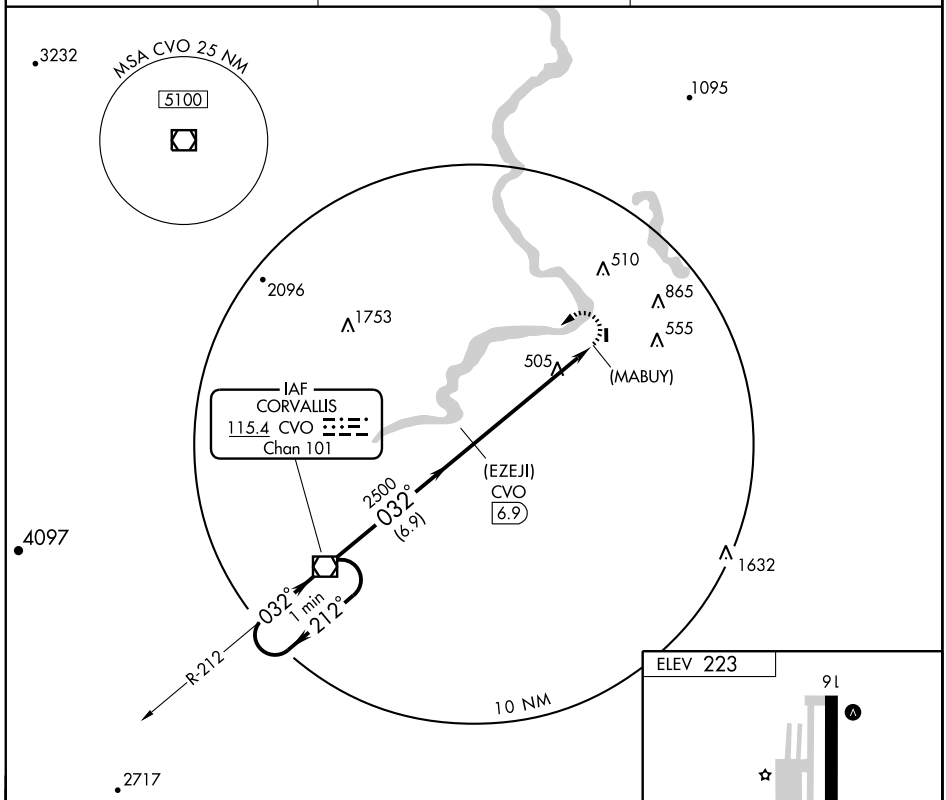
VOR/DME or GPS-A

ALBANY MUNI (S12)

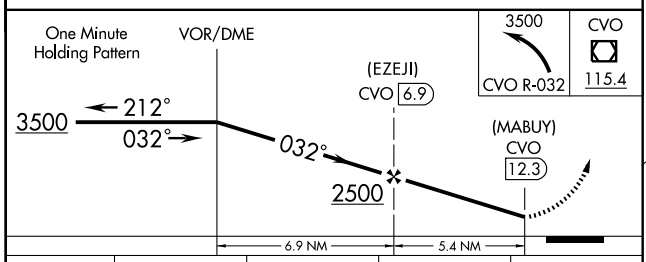
Use Corvallis altimeter setting.

MISSED APPROACH: Climbing left turn to 3500 via CVO R-032 to CVO VOR/DME and hold.

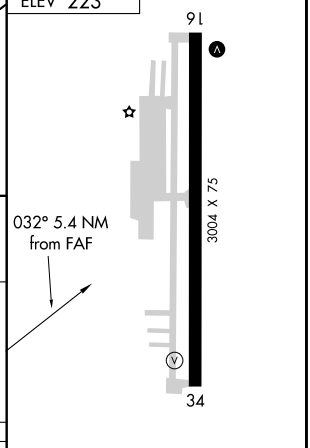
CORVALLIS AWOS-3	CASCADE APP CON ★	UNICOM
135.775	127.5 348.7	122.8 (CTAF) L



NoPT for arrivals on CVO VOR/DME airways radials 154 clockwise to 177.



CATEGORY	A	B	C	D
CIRCLING	840-1 617 (700-1)		NA	

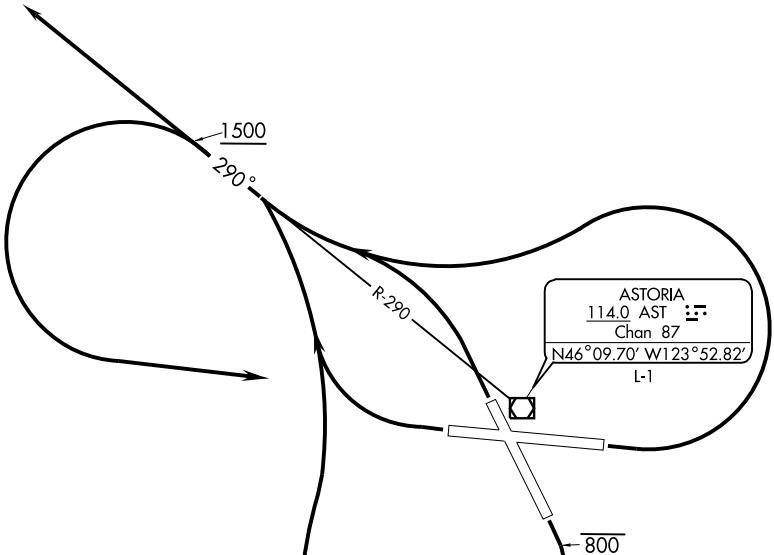


REIL Rwy 34
MIRL Rwy 16-34

NW-1, 03 JUN 2010 to 01 JUL 2010

ASTORIA ONE DEPARTURE (OBSTACLE) SL-24 (FAA)

SEATTLE CENTER
124.2 317.6
McMINNVILLE RADIO
122.3



NOTE: TAKE-OFF MINIMUMS: Rwy 8, 800-3 or standard with minimum climb of 320′ per NM to 900′. Rwy 13, 700-2 or standard with minimum climb of 350′ per NM to 800′. Rwys 26,31, Standard.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 8,31: Turn left. Thence....
TAKE-OFF RUNWAY 26: Turn right. Thence....
TAKE-OFF RUNWAY 13: Climb runway heading to 800 then climbing right turn. Thence....

.... Aircraft departing northwest bound climb via AST R-290 on course. All other aircraft climb to 1500 or above via AST R-290 then left turn to AST VOR/DME and continue climbing on course.

NW-1, 03 JUN 2010 to 01 JUL 2010

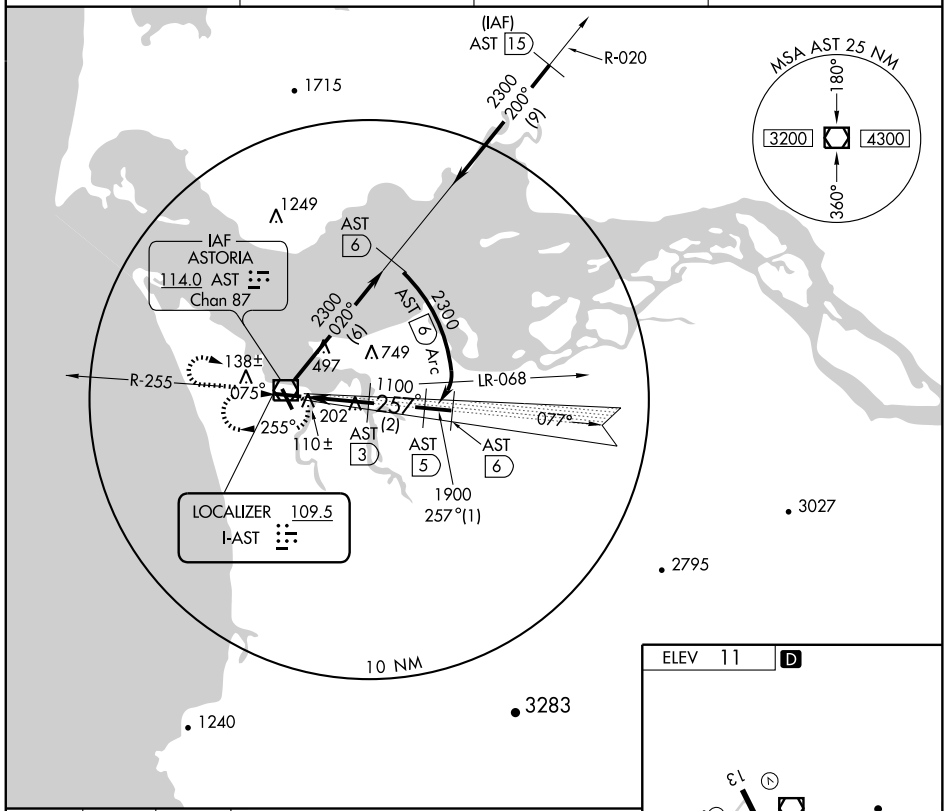
LOC I-AST	APP CRS	Rwy ldg	N/A
109.5	257°	TDZE	9
		Apt Elev	11

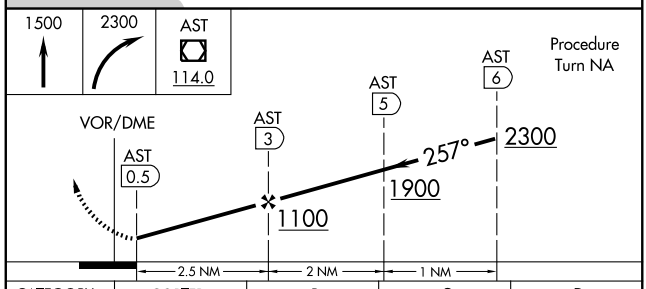
COPTER LOC/DME 257°
ASTORIA RGNL (AST)

DME from AST VOR/DME. Simultaneous reception of I-AST and AST VOR/DME required.
Increase visibility to ½ mile for inoperative MALSR.

MISSED APPROACH: Climb to 1500 then climbing right turn to 2300 direct AST VOR/DME and hold.

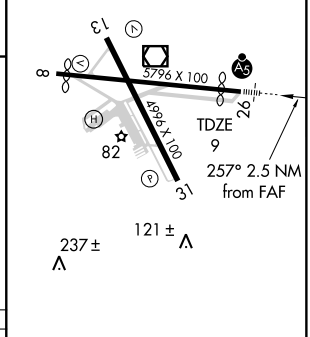
ASOS	SEATTLE CENTER	MC MINNVILLE RADIO	UNICOM
135.375	124.2 317.6	122.3	122.8 (CTAF) L





CATEGORY	COPTER	B	C	D
H-257°	380- ¼ 371 (400- ¼)	NA		

CIRCLING NOT AUTHORIZED



REIL Rwy 8 L
REIL Rwy 13
MIRL Rwys 8-26 and 13-31 L

VOR/DME AST 114.0 Chan 87	APP CRS 066°	Rwy ldg N/A TDZE N/A Apt Elev 11

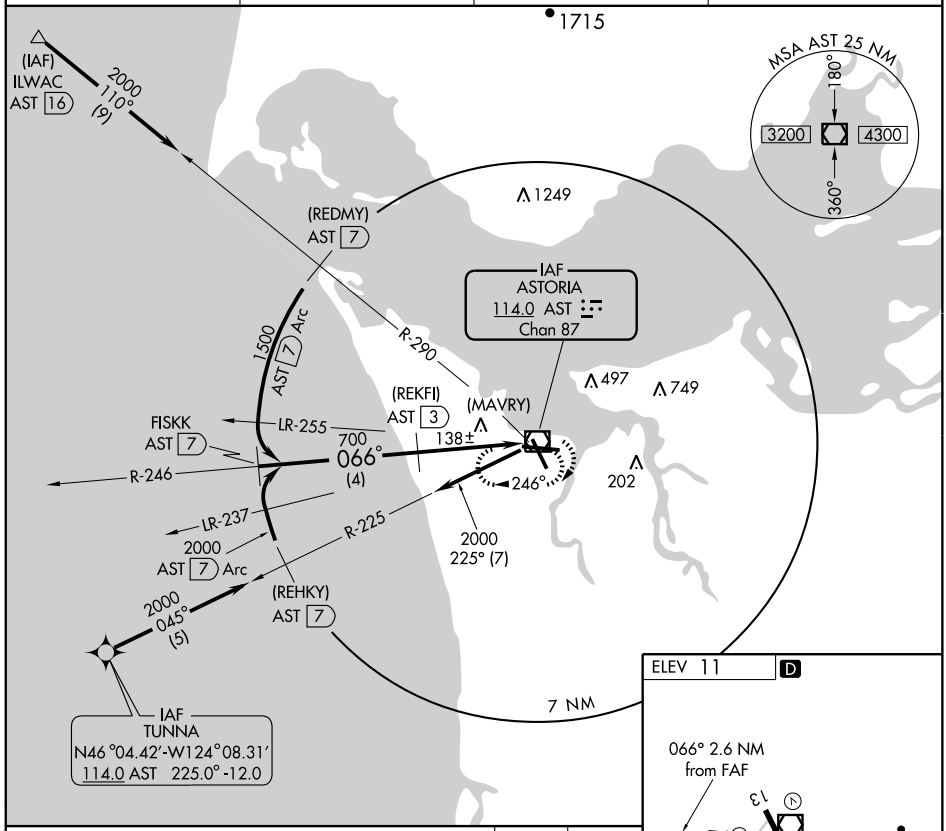
COPTER VOR/DME or GPS 066°

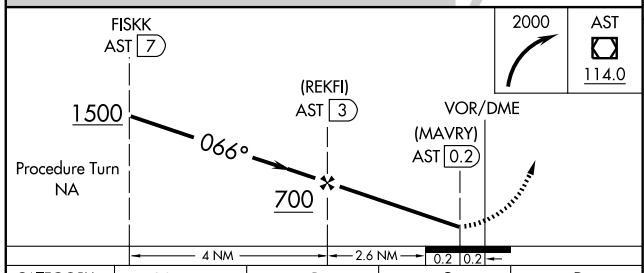
ASTORIA RGNL (AST)

T
NA

MISSED APPROACH: Climbing right turn to 2000 in AST VOR/DME holding pattern.

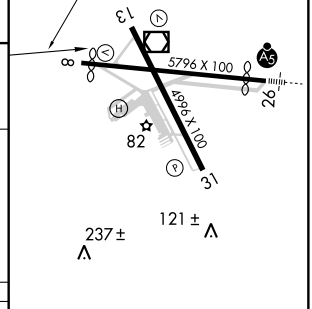
ASOS	SEATTLE CENTER	MC MINNVILLE RADIO	UNICOM
135.375	124.2 317.6	122.3	122.8 (CTAF) L





CATEGORY	COPTER	B	C	D
H-066°	500-½ 489 (500-½)	NA		

CIRCLING NOT AUTHORIZED



REIL Rwy 8 L
REIL Rwy 13
MIRL Rwys 8-26 and 13-31 L

NW-1, 03 JUN 2010 to 01 JUL 2010

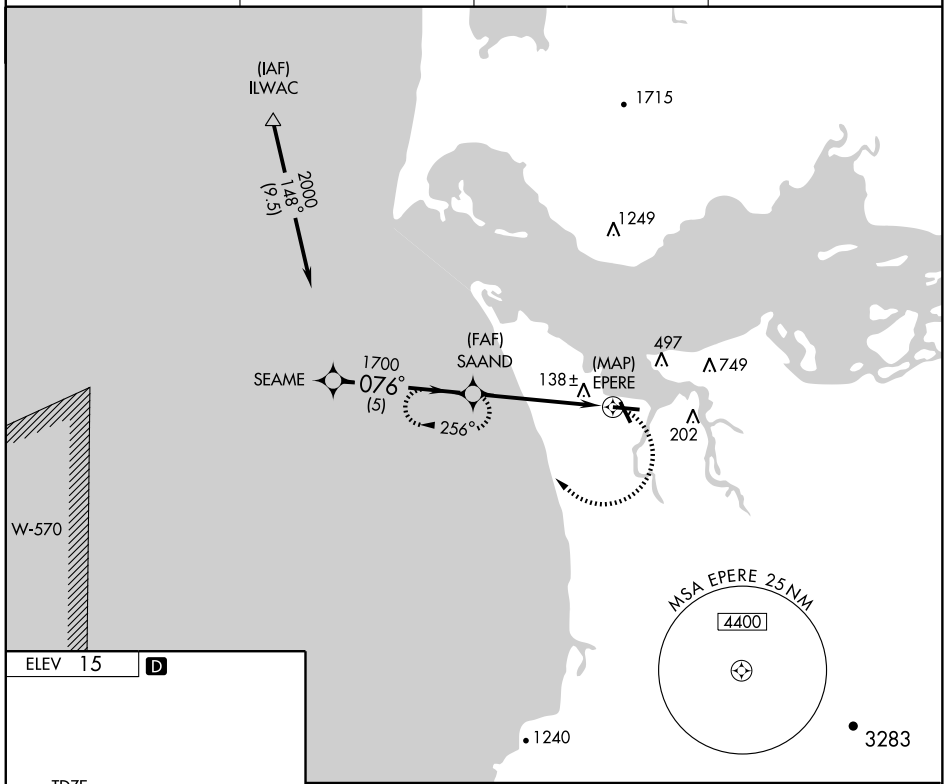
APP CRS	Rwy ldg	4896
076°	TDZE	14
	Apt Elev	15

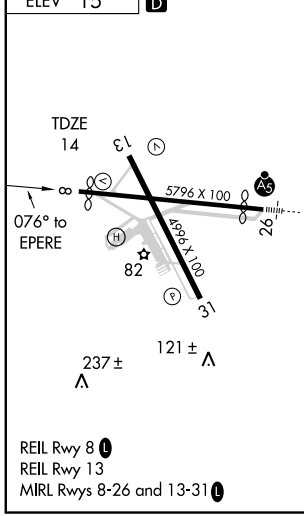
GPS RWY 8
ASTORIA RGNL (AST)

T
NA

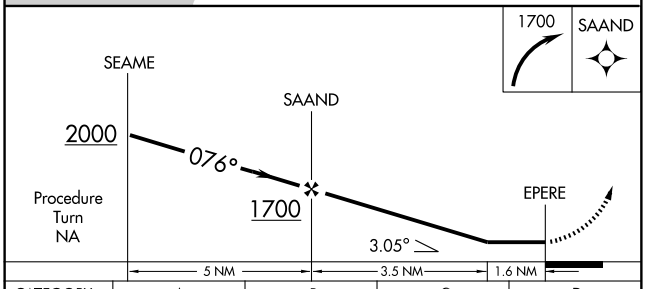
MISSED APPROACH: Climbing right turn to 1700 direct SAAND WP and hold.

ASOS	SEATTLE CENTER	MC MINNVILLE RADIO	UNICOM
135.375	124.2 317.6	122.3	122.8 (CTAF) L





REIL Rwy 8 L
REIL Rwy 13
MIRL Rwys 8-26 and 13-31 L



CATEGORY	A	B	C	D
S-8	600-1 586 (600-1)		600-1½ 586(600-1½)	600-1¾ 586(600-1¾)
CIRCLING	660-1 645(700-1)	760-1¼ 745(800-1¼)	800-2¼ 785(800-2¼)	900-3 885(900-3)

LOC I-AST	APP CRS	Rwy ldg	4782
109.5	257°	TDZE	9
		Apt Elev	11

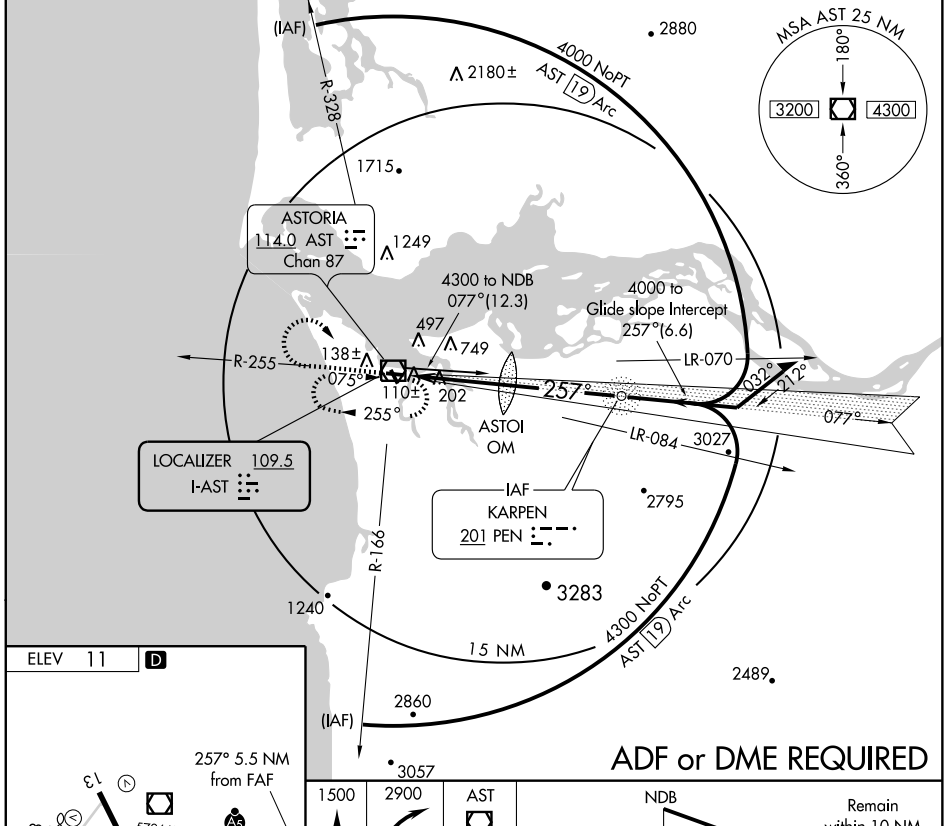
ILS RWY 26
ASTORIA RGNL (AST)

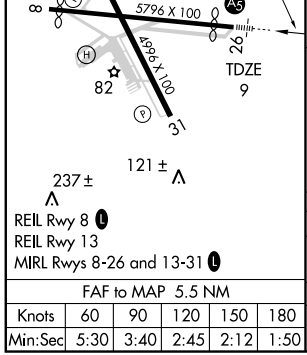
T NA — Circling requires descent on GS to MDA.

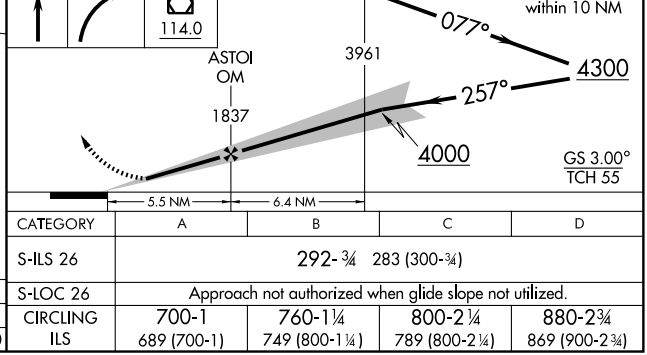
MALSR

MISSED APPROACH: Climb to 1500 then climbing right turn to 2900 direct AST VOR/DME and hold.

ASOS	SEATTLE CENTER	MC MINNVILLE RADIO	UNICOM
135.375	124.2 317.6	122.3	122.8 (CTAF) L







FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

CATEGORY	A	B	C	D
S-ILS 26	292-¾ 283 (300-¾)			
S-LOC 26	Approach not authorized when glide slope not utilized.			
CIRCLING	700-1	760-1¼	800-2¼	880-2¾
ILS	689 (700-1)	749 (800-1¼)	789 (800-2¼)	869 (900-2¾)

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 97711 W26A	APP CRS 257°	Rwy ldg 4782 TDZE 14 Apt Elev 15

RNAV (GPS) RWY 26
ASTORIA RGNL (AST)

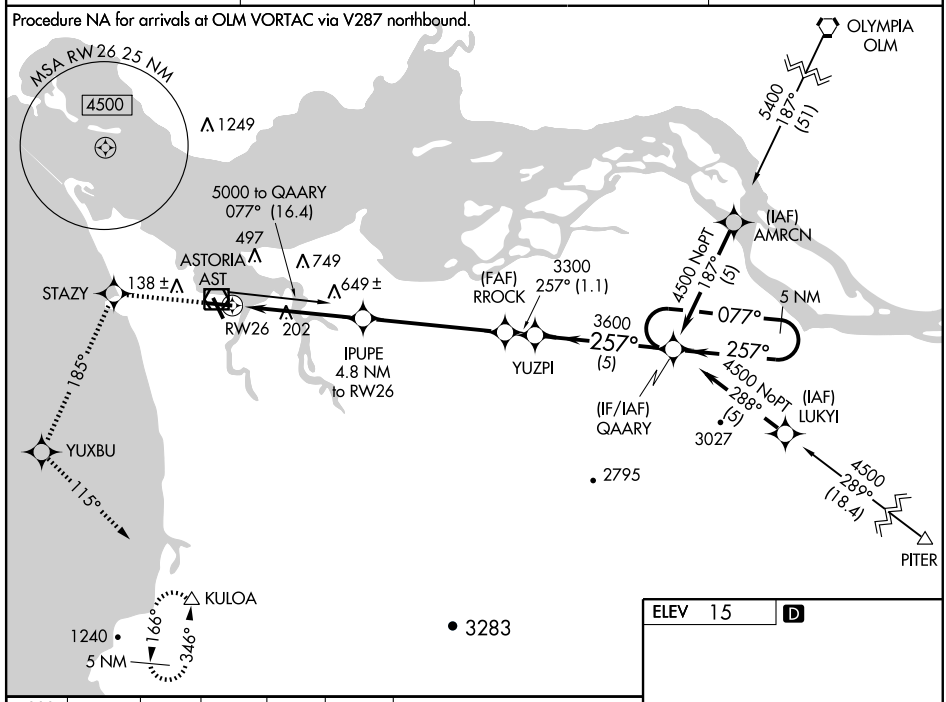
Inoperative table does not apply. DME/DME RNP -0.3 NA.
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Kelso altimeter setting and increase all DA 95 feet and all MDA 100 feet; increase LPV all Cats, LNAV Cats C and D and circling Cats C and D visibility ¼ mile.

MALSR

MISSED APPROACH: Climb to 5000 direct STAZY and via track 185° to YUXBU and via track 115° to KULOA and hold.

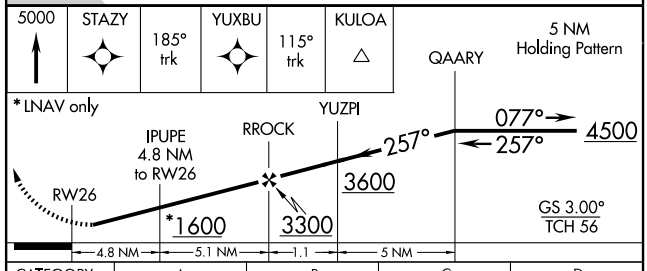
ASOS	SEATTLE CENTER	MC MINNVILLE RADIO	UNICOM
135.375	124.2 317.6	122.3	122.8 (CTAF) L

Procedure NA for arrivals at OLM VORTAC via V287 northbound.



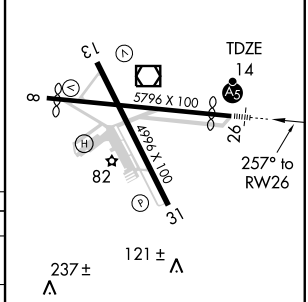
5000	STAZY	185° trk	YUXBU	115° trk	KULOA

5 NM Holding Pattern



CATEGORY	A	B	C	D
LPV DA	300-1	286 (300-1)		
LNAV MDA	900-1¼	886 (900-1¼)	900-2¾ 886 (900-2¾)	900-3 886 (900-3)
CIRCLING	900-1¼	885 (900-1¼)	900-2¾ 885 (900-2¾)	900-3 885 (900-3)

ELEV 15 D



REIL Rwy 8 L
REIL Rwy 13
MIRL Rwys 8-26 and 13-31 L

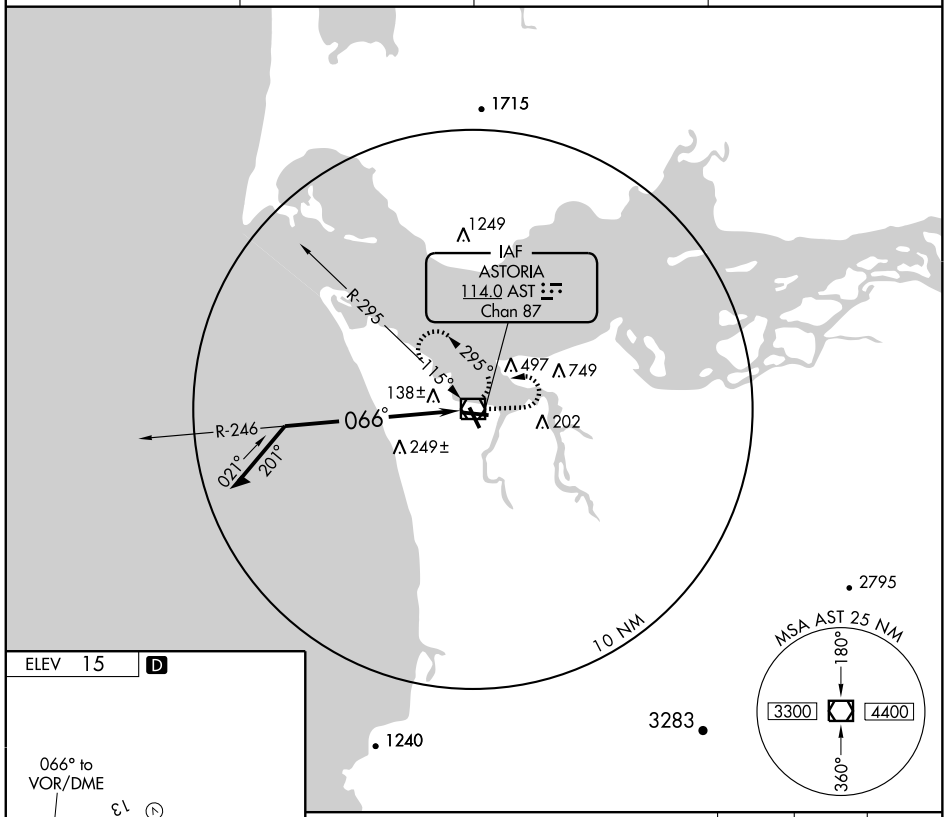
NW-1. 03 JUN 2010 to 01 JUL 2010

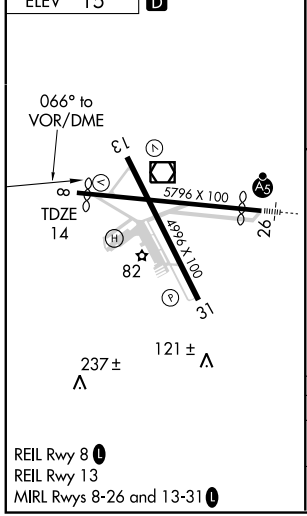
VOR/DME AST	APP CRS	Rwy ldg	4896
114.0	066°	TDZE	14
Chan 87		Apt Elev	15

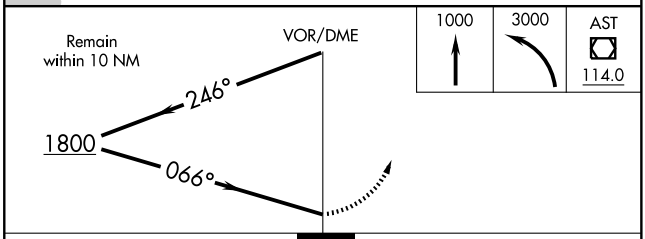
VOR RWY 8
ASTORIA RGNL (AST)

MISSED APPROACH: Climb to 1000 then climbing left turn to 3000 in AST VOR/DME holding pattern.

ASOS	SEATTLE CENTER	MC MINNVILLE RADIO	UNICOM
135.375	124.2 317.6	122.3	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-8	660-1 646 (700-1)		660-1¾ 646 (700-1¾)	660-2 646 (700-2)
CIRCLING	660-1 645 (700-1)	760-1¼ 745 (800-1¼)	800-2¼ 785 (800-2¼)	900-3 885 (900-3)

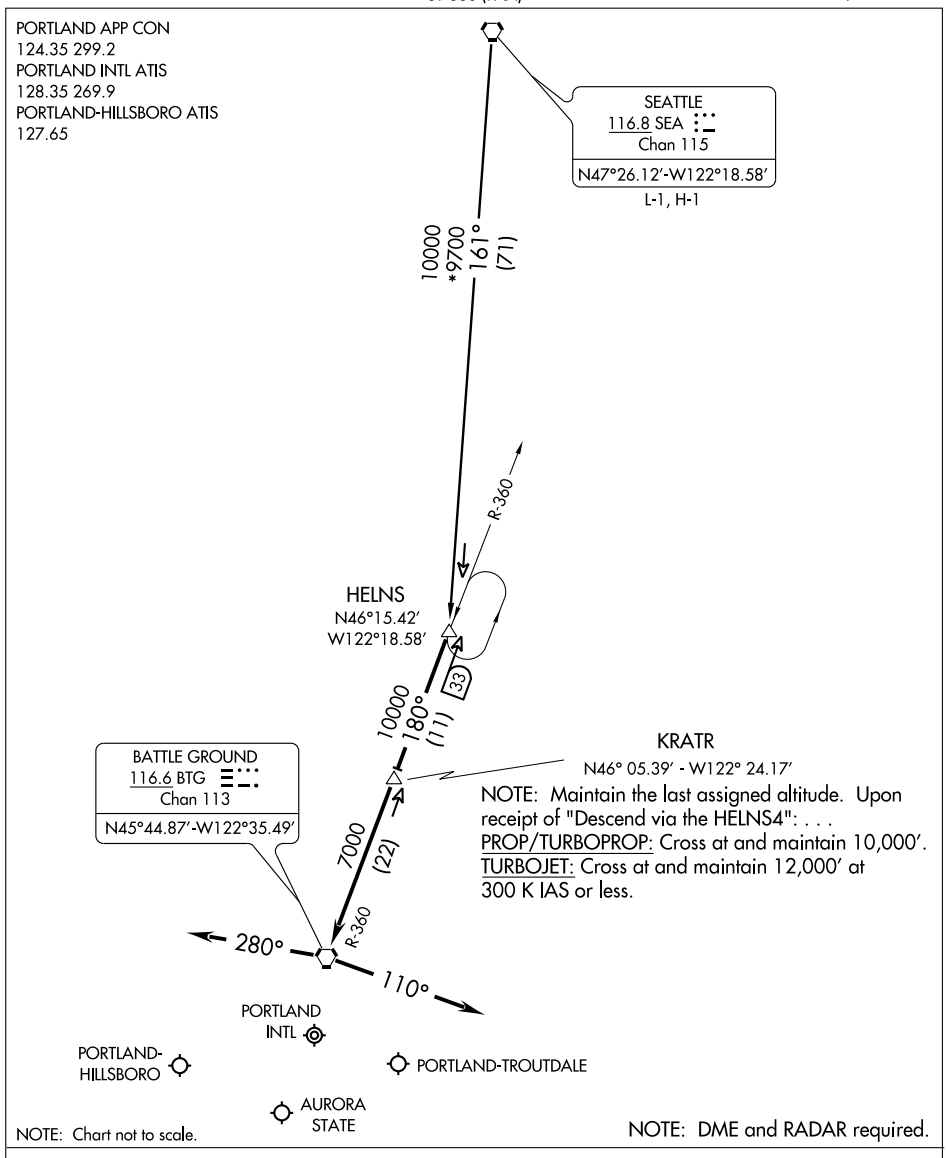
NW-1, 03 JUN 2010 to 01 JUL 2010

(HELNS.HELNS4) 03135

HELNS FOUR ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



SEATTLE TRANSITION (SEA.HELNS4): From over SEA VORTAC via SEA R-161 to HELNS DME FIX. Thence....

.... From over HELNS DME FIX via BTG R-360 to BTG VORTAC. Thence....

LANDING EAST: Depart BTG VORTAC heading 280° for vectors to final approach course.

LANDING WEST: Depart BTG VORTAC heading 110° for vectors to final approach course.

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-UAO 111.15 Chan 48 (Y)	APP CRS 169°	Rwy ldg 5004 TDZE 200 Apt Elev 200

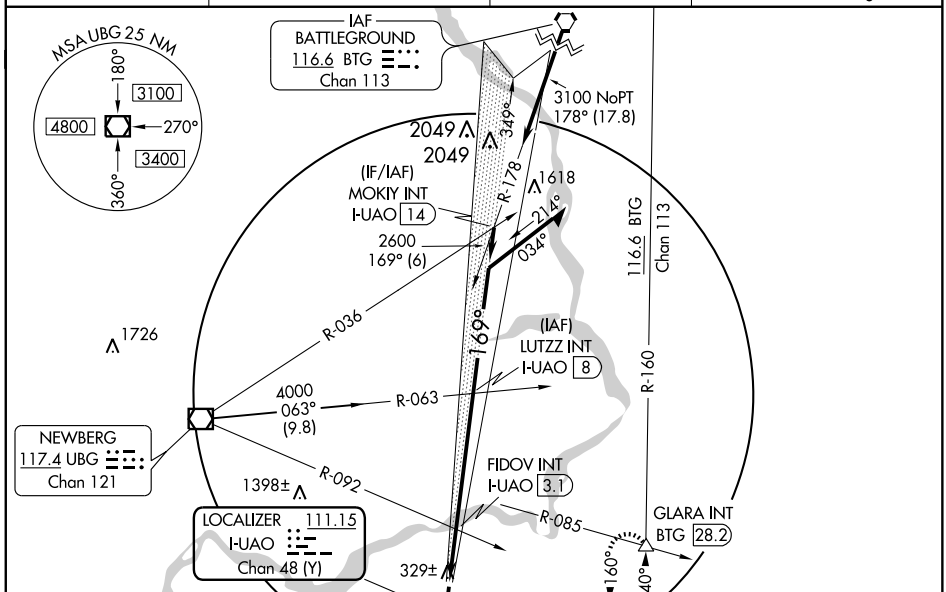
LOC RWY 17
AURORA STATE (UAO)

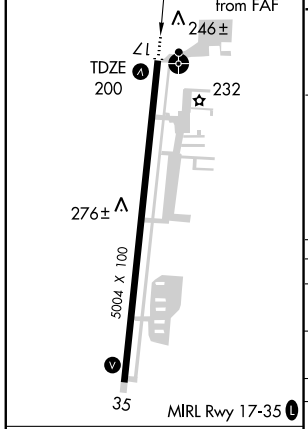
Inoperative table does not apply.

ODALS

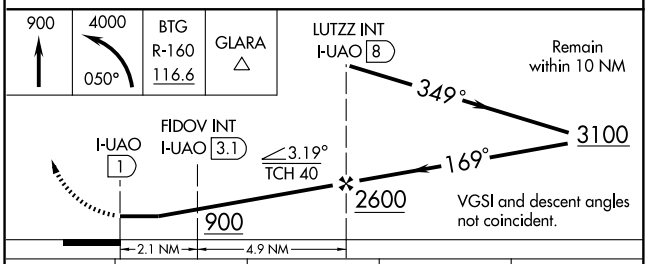
MISSED APPROACH: Climb to 900 then climbing left turn to 4000 via heading 050° and BTG R-160 to GLARA Int/ BTG 28.2 DME and hold. Continue climb-in-hold to 4000.

ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
118.525	126.0 284.6	119.95	122.7 (CTAF) L





FAF to MAP 7 NM					
Knots	60	90	120	150	180
Min:Sec	6:59	4:40	3:29	2:47	2:19



CATEGORY	A	B	C	D
S-17	900-1 700 (700-1)		900-2 700 (700-2)	900-2¼ 700 (700-2¼)
CIRCLING	900-1 700 (700-1)		900-2 700 (700-2)	900-2¼ 700 (700-2¼)
FIDOV FIX MINIMUMS				
S-17	580-1 380 (400-1)			580-1¼ 380 (400-1¼)
CIRCLING	640-1 440 (500-1)	660-1 460 (500-1)	660-1½ 460 (500-1½)	760-2 560 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

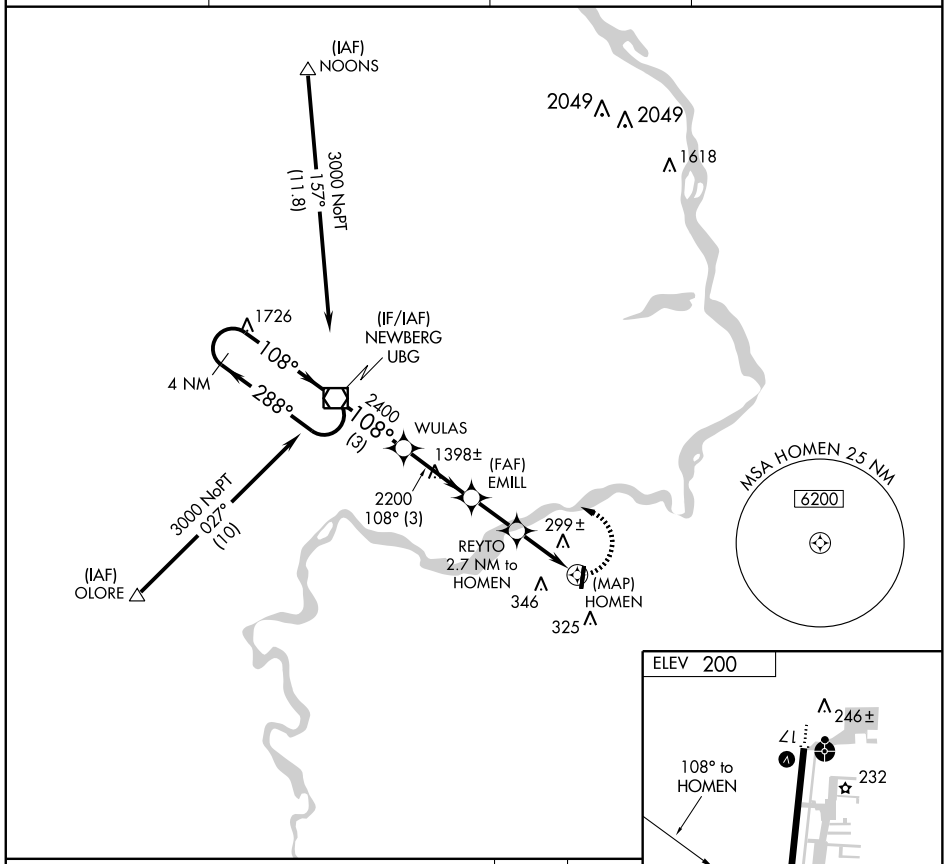
APP CRS	Rwy ldg	N/A
108°	TDZE	N/A
	Apt Elev	200

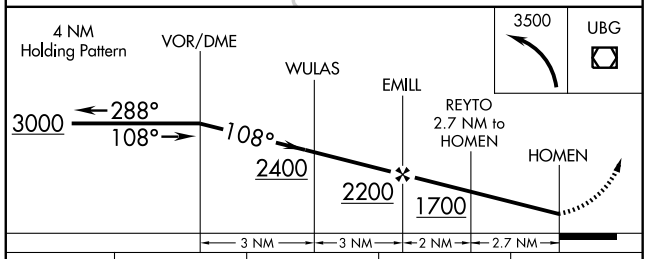
RNAV (GPS)-B
AURORA STATE (UAO)

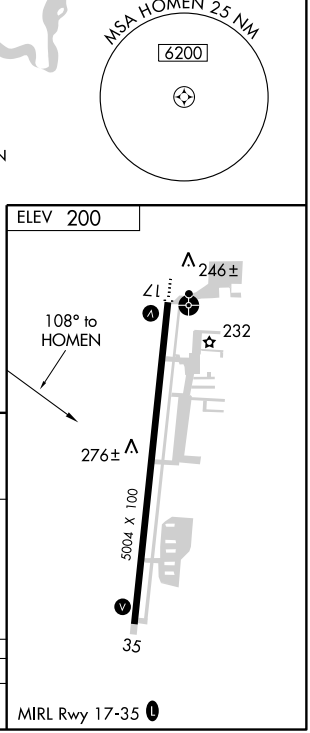
DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing left turn to 3500 direct UBG VOR/DME and hold.

ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
118.525	126.0 284.6	119.95	122.7 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	640-1 440 (500-1)	660-1 460 (500-1)	660-1½ 460 (500-1½)	760-2 560 (600-2)

WAAS CH 70308 W17A	APP CRS 169°	Rwy ldg 5004 TDZE 200 Apt Elev 200

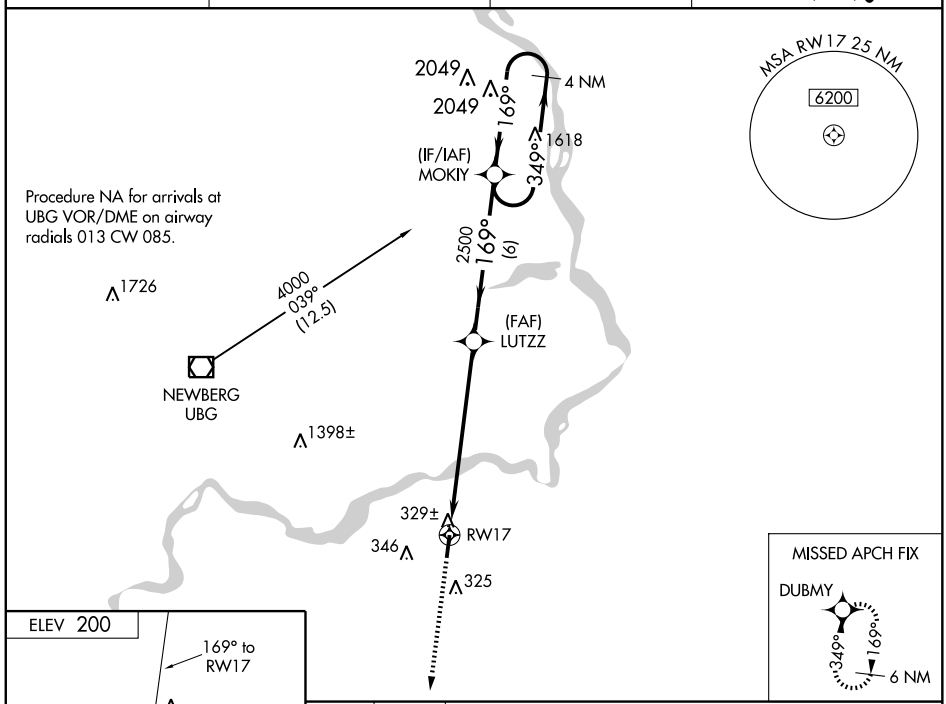
RNAV (GPS) RWY 17
AURORA STATE (UAO)

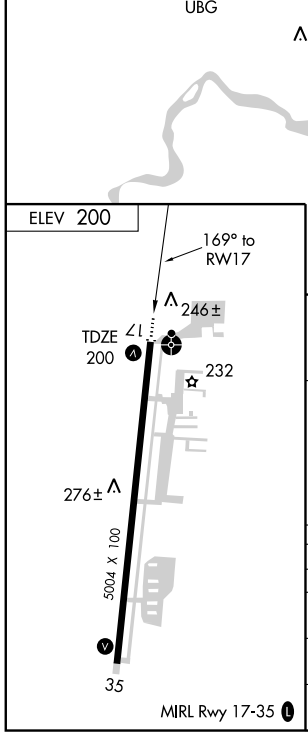
DME/DME RNP-0.3 NA. When local altimeter setting not received, use Mc Minnville Muni altimeter setting and increase all DA 42 feet and all MDA 60 feet; increase LPV, LNAV/VNAV visibilities all Cats. ¼ mile, increase LNAV visibility Cats. A/C/D ¼ mile, increase Circling visibilities Cats. A/C/D ¼ mile. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). Inoperative table does not apply. Visibility reduction by helicopters NA.

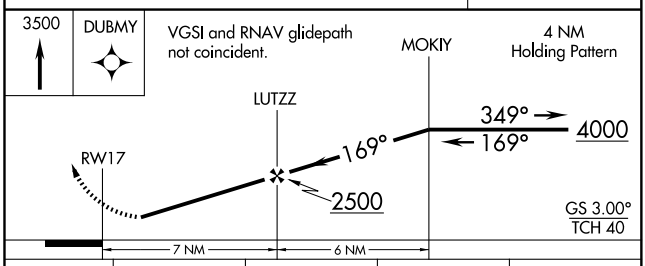
ODALS

MISSED APPROACH: Climb to 3500 direct DUBMY and hold, continue climb-in-hold to 3500.

ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
118.525	126.0 284.6	119.95	122.7 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	550-1¼ 350 (400-1¼)			
LNAV/VNAV DA	580-1¼ 380 (400-1¼)			
LNAV MDA	1060-1 860 (900-1)	1060-1¼ 860 (900-1¼)	1060-2½ 860 (900-2½)	1060-2¾ 860 (900-2¾)
CIRCLING	1060-1 860 (900-1)	1060-1¼ 860 (900-1¼)	1060-2½ 860 (900-2½)	1060-2¾ 860 (900-2¾)

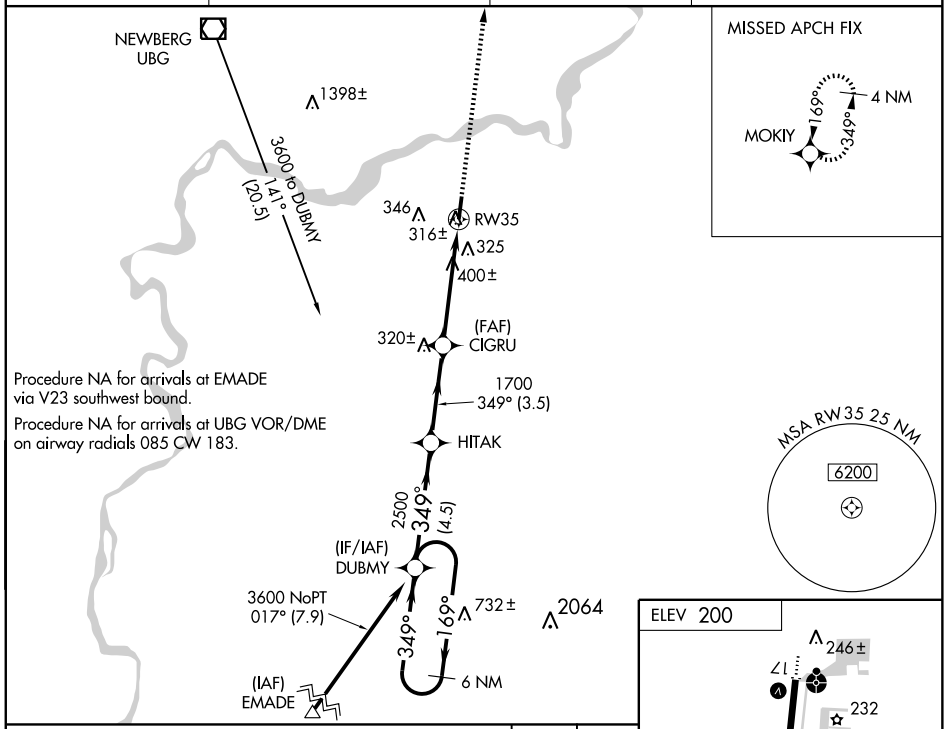
WAAS CH 77508 W35A	APP CRS 349°	Rwy ldg 5004 TDZE 199 Apt Elev 200

RNAV (GPS) RWY 35
AURORA STATE (UAO)

DME/DME RNP-0.3 NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). When local altimeter setting not received, use Mc Minnville Muni altimeter setting and increase all DA 42 feet and MDA 60 feet; increase LPV, LNAV/VNAV visibilities ¼ mile all Cats, increase LNAV Cat D visibility to 1½. Visibility reduction by helicopters NA.
Baro-VNAV NA when using Mc Minnville Muni altimeter setting.

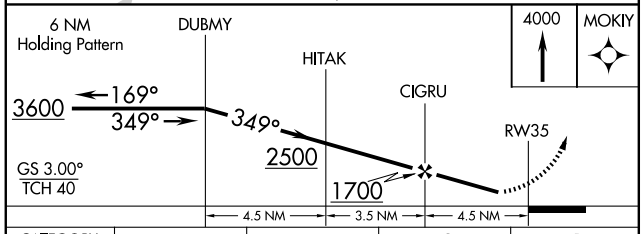
MISSED APPROACH: Climb to 4000 direct MOKIY and hold, continue climb-in-hold to 4000.

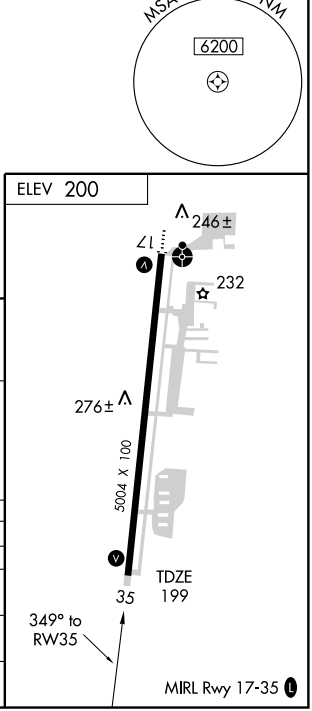
ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
118.525	126.0 284.6	119.95	122.7 (CTAF) L



Procedure NA for arrivals at EMADE via V23 southwest bound.

Procedure NA for arrivals at UBG VOR/DME on airway radials 085 CW 183.





CATEGORY	A	B	C	D
LPV DA	500-1 301 (300-1)			
LNAV/VNAV DA	604-1½ 405 (500-1½)			
LNAV MDA	700-1 501 (500-1)		700-1½ 501 (500-1½)	
CIRCLING	700-1 500 (500-1)		700-1½ 500 (500-1½)	760-2 560 (600-2)

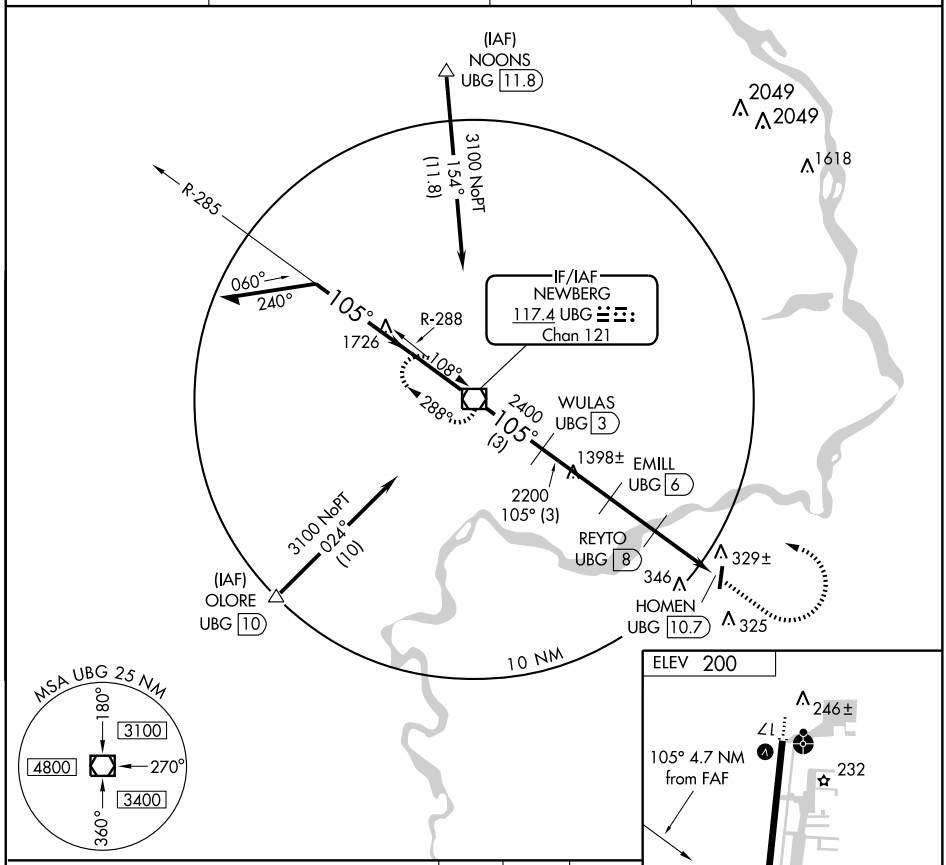
NW-1. 03 JUN 2010 to 01 JUL 2010

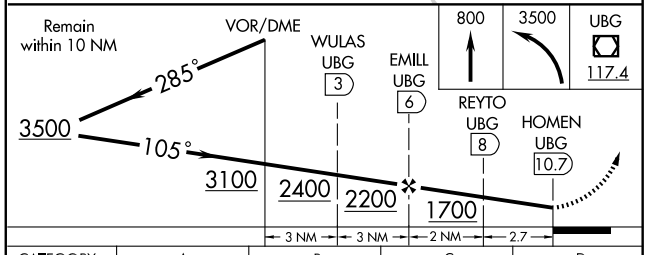
VOR/DME UBG 117.4 Chan 121	APP CRS 105°	Rwy ldg N/A TDZE N/A Apt Elev 200

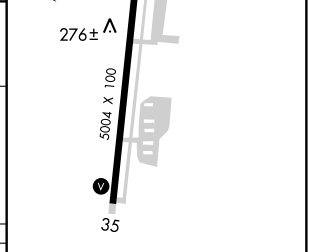
VOR/DME-A
AURORA STATE (UAO)

MISSED APPROACH: Climb to 800 then climbing left turn to 3500 direct UBG VOR/DME and hold.

ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
118.525	126.0 284.6	119.95	122.7 (CTAF)







CATEGORY	A	B	C	D
CIRCLING	640-1 440 (500-1)	660-1 460 (500-1)	660-1½ 460 (500-1½)	760-2 560 (600-2)

MIRL Rwy 17-35

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5095
125°	TDZE	3370
	Apt Elev	3372

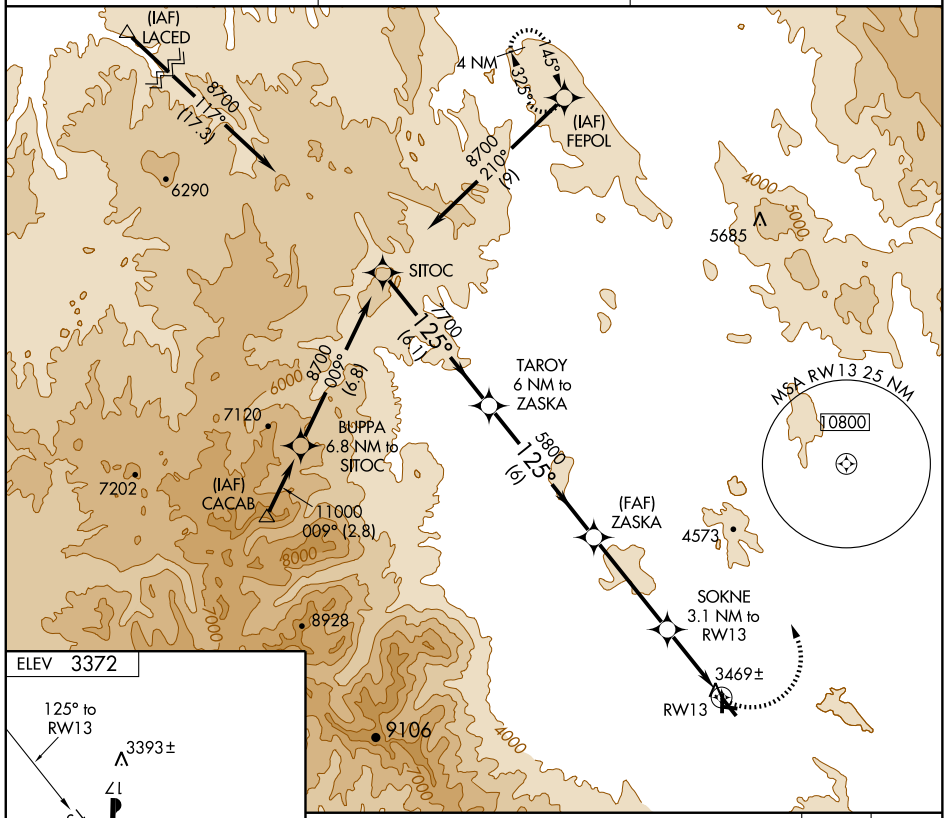
RNAV (GPS) RWY 13

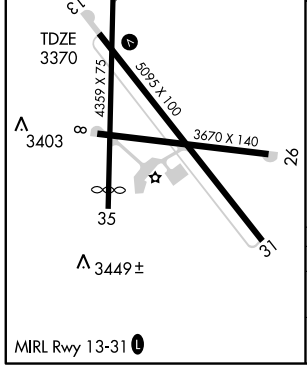
BAKER CITY MUNI (BKE)

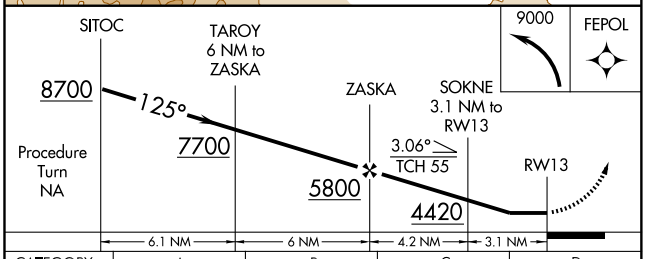
DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing left turn to 9000 direct FEPOL and hold.

ASOS	SALT LAKE CENTER	UNICOM
134.275	128.05 387.15	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	4080-1 710 (800-1)		4080-2 710 (800-2)	4080-2¼ 710 (800-2¼)
CIRCLING	4080-1 708 (800-1)		4080-2 708 (800-2)	4220-2¾ 848 (900-2¾)

NW-1, 03 JUN 2010 to 01 JUL 2010

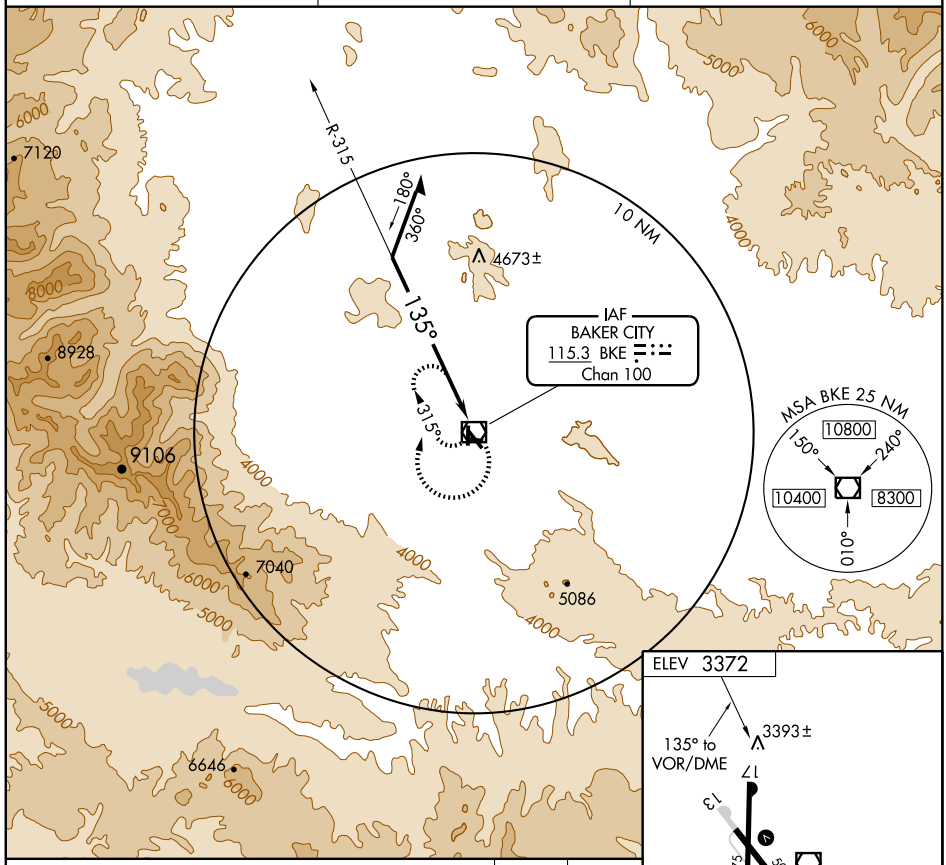
VOR/DME BKE 115.3 Chan 100	APP CRS 135°	Rwy ldg N/A TDZE N/A Apt Elev 3372

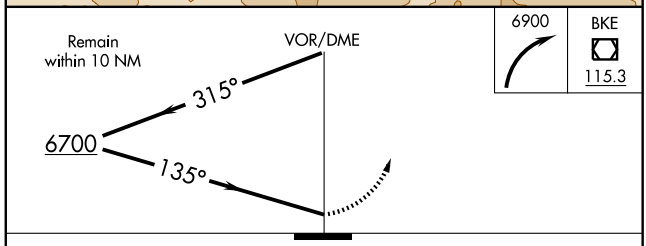
VOR-A

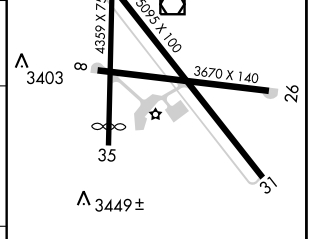
BAKER CITY MUNI (BKE)

MISSED APPROACH: Climbing right turn to 6900 in BKE VOR/DME holding pattern.

ASOS	SALT LAKE CENTER	UNICOM
134.275	128.05 387.15	123.0 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	5200-1¼ 1828 (1900-1¼)	5200-1½ 1828 (1900-1½)	5200-3 1828 (1900-3)	

MIRL Rwy 13-31 L

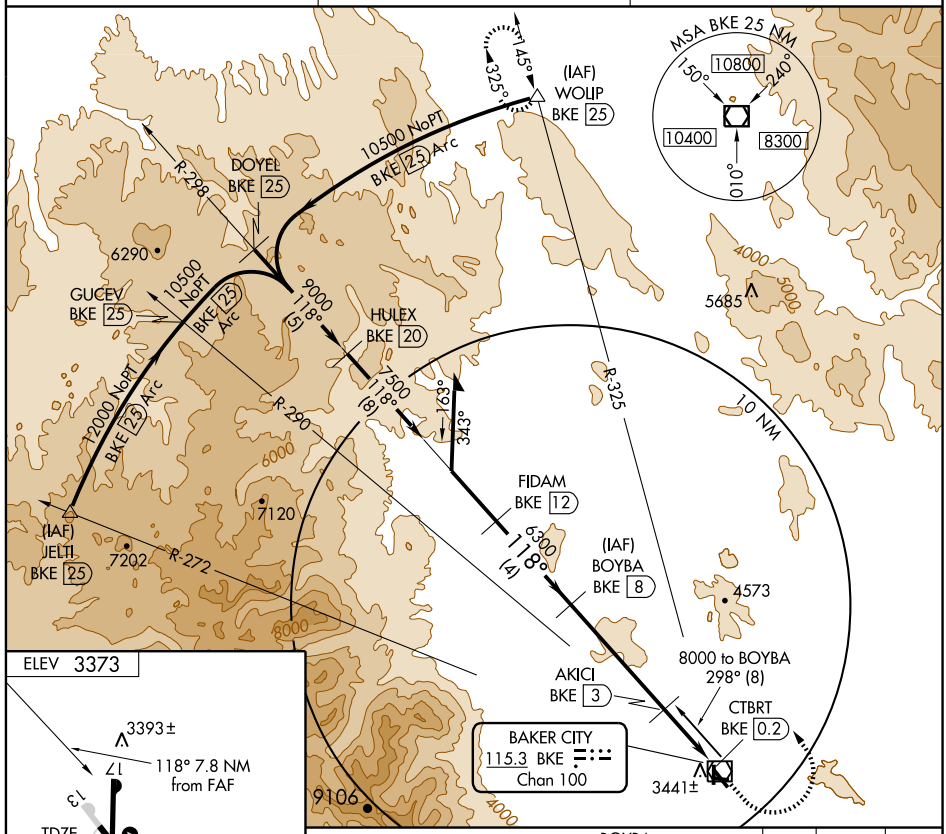
NW-1. 03 JUN 2010 to 01 JUL 2010

VOR/DME BKE 115.3 Chan 100	APP CRS 118°	Rwy ldg 5095 TDZE 3370 Apt Elev 3373

VOR/DME RWY 13
BAKER CITY MUNI (BKE)

MISSED APPROACH: Climb to 4000 then climbing left turn to 10500 via BKE R-325 to WOLIP and hold.

ASOS	SALT LAKE CENTER	UNICOM
134.275	128.05 387.15	123.0 (CTAF) L



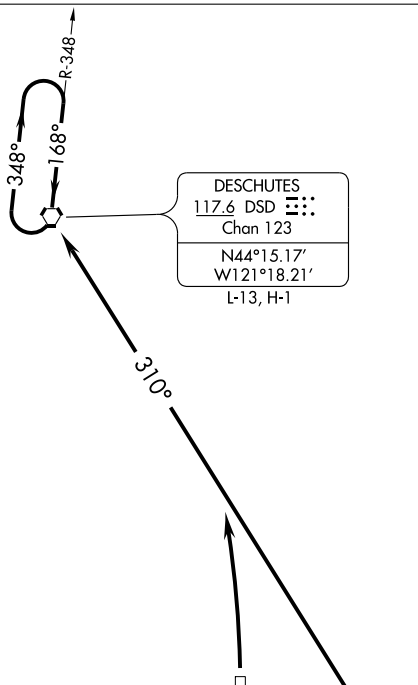
CATEGORY	A	B	C	D
S-13	4000-1 630 (700-1)		4000-1¾ 630 (700-1¾)	4000-2 630 (700-2)
CIRCLING	4000-1 627 (700-1)	4000-1 627 (700-1)	4000-1¾ 627 (700-1¾)	4220-2¾ 847 (900-2¾)

MIRL Rwy 13-31 L

NW-1, 03 JUN 2010 to 01 JUL 2010

BEND ONE DEPARTURE (OBSTACLE)

SEATTLE CENTER
128.15 257.75
CTAF 123.0



TAKE-OFF MINIMUMS

Rwys 16, 34: Standard.

TAKE-OFF OBSTACLE NOTES

Rwy 16: Trees beginning 75′ from DER, 412′ left of centerline, up to 43′ AGL/3572′ MSL.
Trees beginning 432′ from DER, 5′ right of centerline, up to 37′ AGL/3541′ MSL.
Terrain beginning 27′ from DER, 197′ right of centerline, up to 3469′ MSL.
Road 1′ from DER, 414′ left of centerline, 17′ AGL/3466′ MSL.

Rwy 34: Trees beginning 306′ from DER, 178′ left of centerline, up to 25′ AGL/3436′ MSL.
Road beginning 460′ from DER, 414′ left of centerline, up to 17′ AGL/3425′ MSL.
Bush 94′ from DER, 443′ left of centerline, 4′ AGL/3407′ MSL.
Terrain beginning 1′ from DER, 147′ left of centerline, up to 3408′ MSL.
Trees beginning 52′ from DER, 252′ right of centerline, up to 39′ AGL/3429′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 16: Climbing left turn to intercept DSD R-130 to DSD VORTAC, Thence . . . .

TAKE-OFF RUNWAY 34: Climbing left turn to intercept the DSD R-130 to DSD VORTAC, Thence . . . .

. . . . Climb in DSD VORTAC holding pattern to cross DSD VORTAC at or above the MEA/MCA for the route of flight.

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5200
326°	TDZE	3460
	Apt Elev	3460

RNAV (GPS) RWY 34
BEND MUNI (BDN)

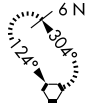
T
NA

DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Redmond altimeter setting and increase all MDAs 80 feet, LNAV Cats C/D visibility ¼ mile and Circling Cat C/D visibility ¼ mile.

MISSED APPROACH: Climb to 6000 direct CELVA and via 315° track to DESCHUTES VORTAC and hold

AWOS-3	SEATTLE CENTER	UNICOM
134.425	128.15 257.75	123.0 (CTAF) L

MISSED APCH FIX



Procedure NA for arrivals at DSD VORTAC on airway radials 092 CW 196.

DESCHUTES DSD

8000 to HARBU 139° (26.7)

315°

CELVA

3660

4570 3852

(MAP) FEDKU

6178 5560

5335

3839±

3869±

GUPYE 4.5 NM to FEDKU

326°

MSA FEDKU 25 NM

11600

5850

4419±

4579±

(FAF) CODAY

6700 311° (2.6)

NALOE

5148

7400 311° (3.4)

6162

(IF/IAF) HARBU

131°

311°

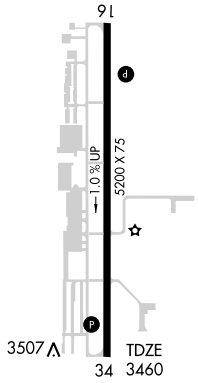
8000 NoPT 333° (8.5)

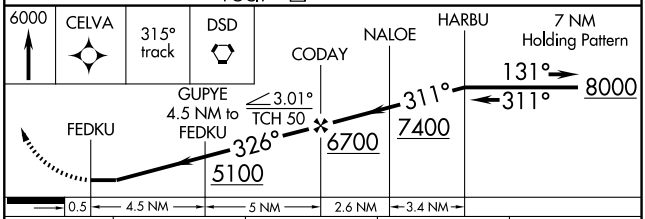
7 NM

6509

(IAF) POCIT

ELEV 3460





CATEGORY	A	B	C	D
LNAV MDA	4100-1 640 (700-1)		4100-1¾ 640 (700-1¾)	4100-2 640 (700-2)
CIRCLING	4100-1 640 (700-1)		4100-1¾ 640 (700-1¾)	4100-2 640 (700-2)

MIRL Rwy 16-34 L

NW-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5200
150°	TDZE	3432
	Apt Elev	3460

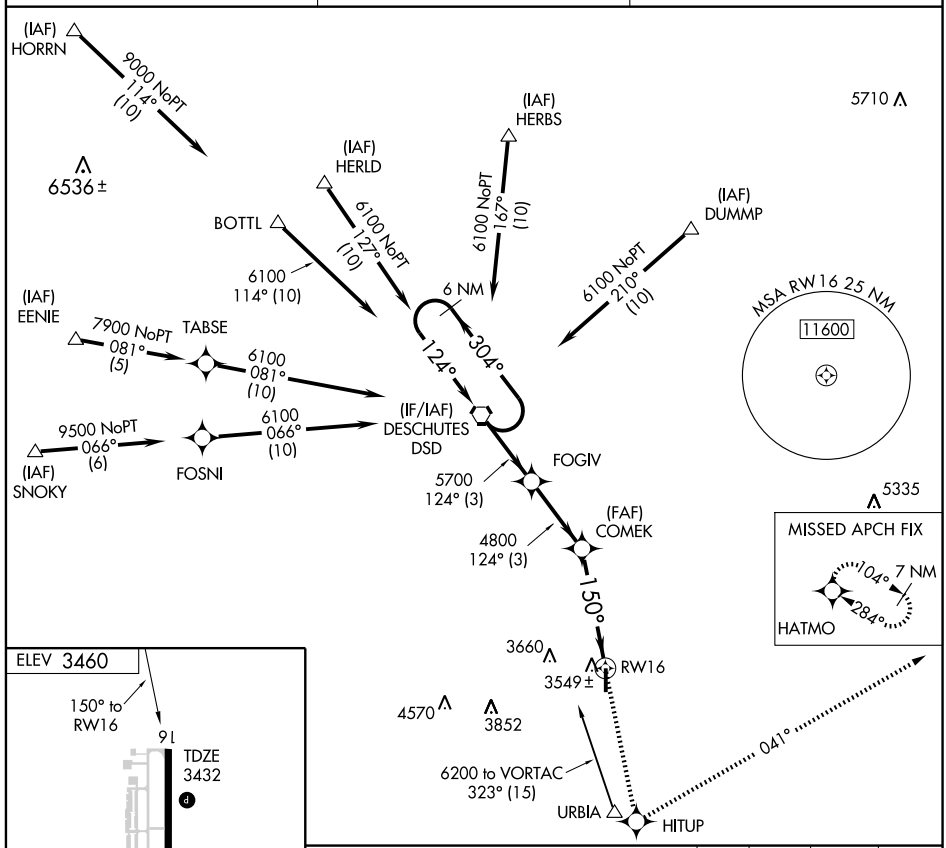
RNAV (GPS) Y RWY 16
BEND MUNI (BDN)

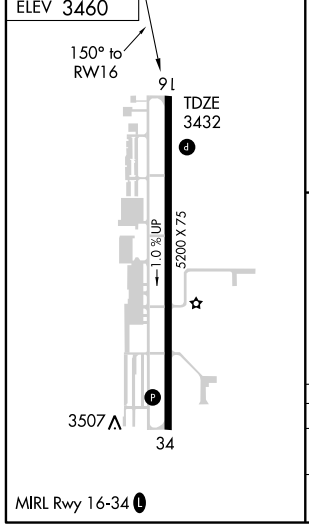
NA

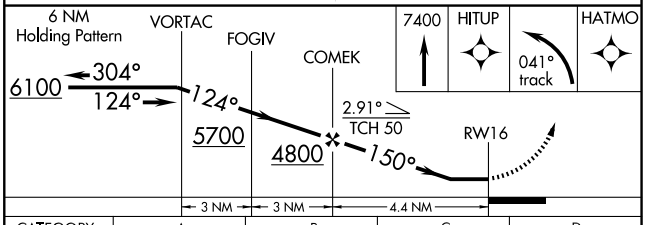
DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Redmond altimeter setting and increase all MDAs 80 feet, and LNAV Cats C/D visibility ¼ mile, and circling Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 7400 direct HITUP and left turn via 041° track to HATMO and hold, continue climb-in-hold to 7400.

AWOS-3	SEATTLE CENTER	UNICOM
134.425	128.15 257.75	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	3800-1 368 (400-1)			3800-1¼ 368 (400-1¼)
CIRCLING	3940-1 480 (500-1)	3980-1 520 (600-1)	4000-1½ 540 (600-1½)	4040-2 580 (600-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

BEND, OREGON

AL-5579 (FAA)

WAAS CH 81906 W16A	APP CRS 161°	Rwy ldg 5200 TDZE 3432 Apt Elev 3460

RNAV (GPS) Z RWY 16

BEND MUNI (BDN)

When local altimeter setting not received, use Redmond altimeter setting and increase all DA/MDAs by 80 feet, LPV visibilities ¼ mile all Cats, LNAV/VNAV visibilities ¼ mile all Cats, LNAV Cat D visibility ¼ mile, and circling Cat C visibility ¼ mile.
For uncompensated Baro-VNAV systems, procedure NA below -21°C (-5°F) or above 42°C (107°F).
DME/DME RNP 0.3 NA. Visibility reduction by helicopters NA.

NA

MISSED APPROACH: Climb to 9500 direct JOGON and left turn via 051° track to SAKKO and hold, continue climb-in-hold to 9500.

AWOS-3	SEATTLE CENTER	UNICOM
134.425	128.15 257.75	123.0 (CTAF) L

Procedure NA for arrivals at DSD VORTAC on airway radials 348 CW 052, and V269-536 eastbound.

(IAF) HERBS
7000 NoPT 131° (6.9)
7 NM
341°
161°
(IF/IAF) FOMBO
7000 029° (6)
5400 161° (7)
DESCHUTES DSD
(FAF) HEKIL
5335
MISSED APCH FIX
7 NM
091°
271°
SAKKO
MSA RW16 25 NM
11600
3539±
3660
RW16
4570
3852
3549±
051°
JOGON

ELEV 3460
161° to RW16
9L
TDZE 3432
5200 X 75
1.0 % UP
3507
34
MIRL Rwy 16-34 L

7 NM Holding Pattern
FOMBO
7000
341°
161°
161°
HEKIL
5400
5400
*1.2 NM to RW16
RW16
GS 3.00°
TCH 50
* LNAV only
9500
JOGON
051° track
SAKKO
7 NM
4.8 NM
1.2 NM

CATEGORY	A	B	C	D
LPV DA	3682-1 250 (300-1)			
LNAV/VNAV DA	3809-1½ 377 (400-1½)			
LNAV MDA	3840-1 408 (400-1)		3840-1¼ 408 (400-1¼)	
CIRCLING	3940-1 480 (500-1)	3980-1 520 (600-1)	4000-1½ 540 (600-1½)	4040-2 580 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC DSD	APP CRS	Rwy ldg	5200
117.6	136°	TDZE	3432
Chan 123		Apt Elev	3460

VOR/DME RWY 16

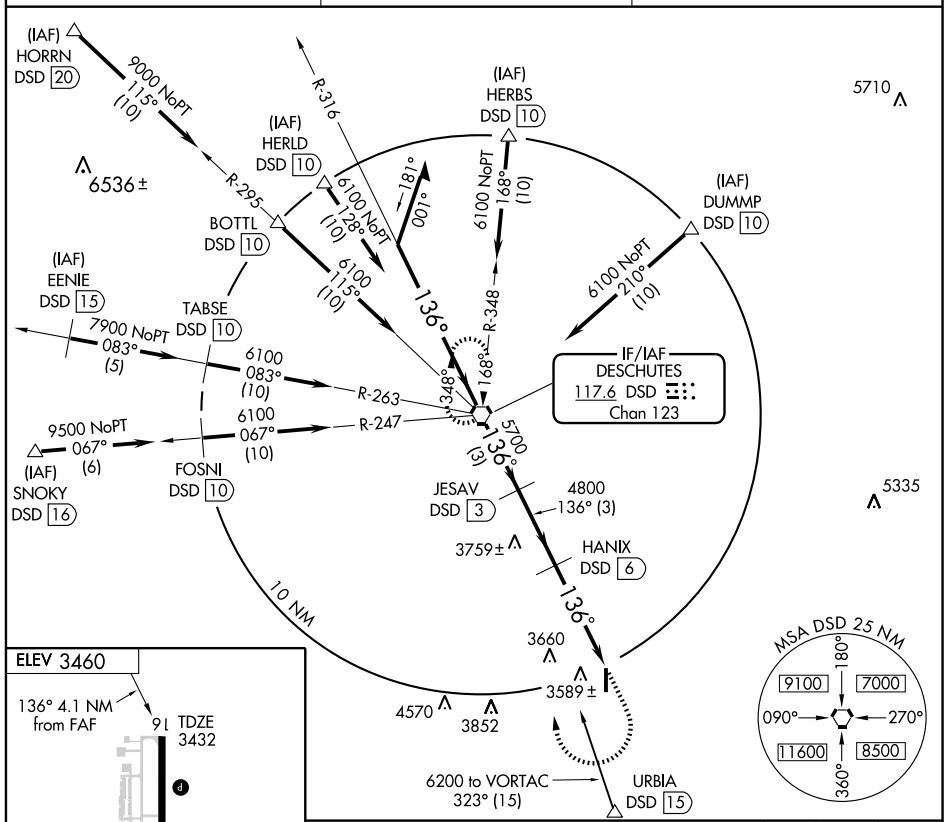
BEND MUNI (BDN)

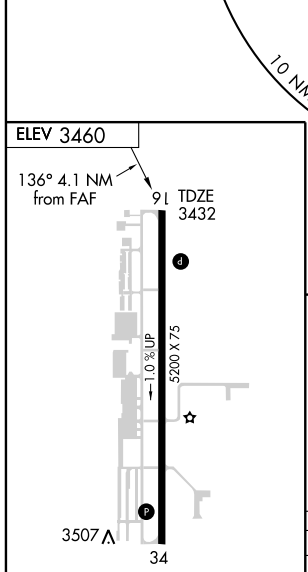
T
A NA

When local altimeter setting not received, use Redmond altimeter setting and increase all MDAs 80 feet, increase S-16 Cat D visibility ¼ mile, and circling Cat C visibility ¼ mile. Visibility reduction by helicopters NA.

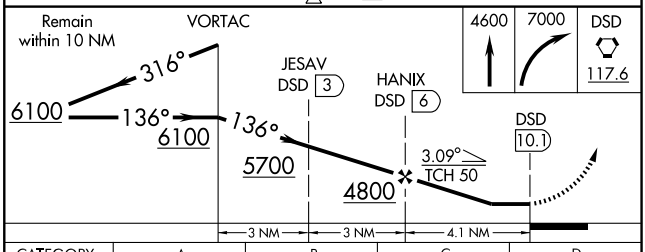
MISSED APPROACH: Climb to 4600 then climbing right turn to 7000 direct DSD VORTAC and hold.

AWOS-3	SEATTLE CENTER	UNICOM
134.425	128.15 257.75	123.0 (CTAF) L





MIRL Rwy 16-34 L



CATEGORY	A	B	C	D
S-16	3840-1 408 (400-1)		3840-1¼ 408 (400-1¼)	
CIRCLING	3940-1 480 (500-1)	3980-1 520 (600-1)	4000-1½ 540 (600-1½)	4040-2 580 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS 297°	Rwy ldg	5100
	TDZE	4148
	Apt Elev	4148

RNAV (GPS) RWY 30
BURNS MUNI (BNO)

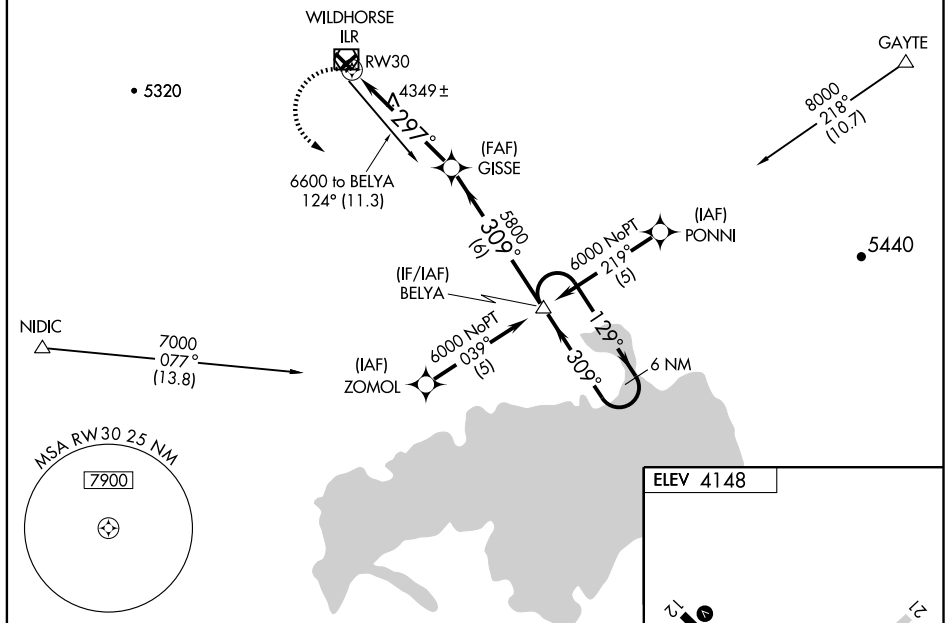
T NA

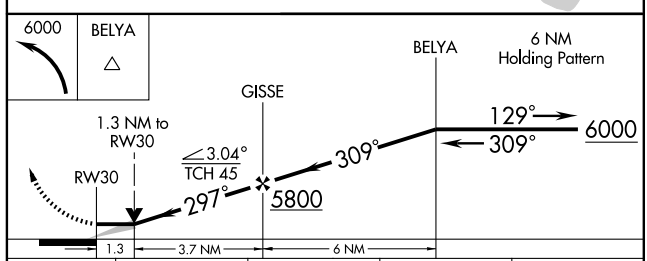
DME/DME RNP- 0.3 NA.

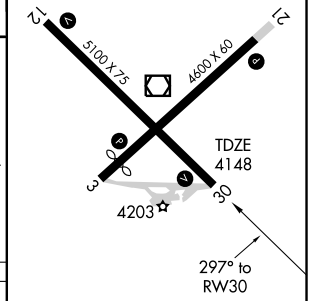
MISSED APPROACH: Climbing left turn to 6000 direct BELYA and hold.

ASOS	MC MINNVILLE RADIO	UNICOM
135.575	122.5	122.8 (CTAF) L

Procedure NA for arrival at NIDIC via V357 southwestbound.
Procedure NA for arrival at GAYTE via V330 eastbound.
NoPT for arrival at ILR VOR/DME via V497 northwestbound.







CATEGORY	A	B	C	D
LNAV MDA	4600-1 452 (500-1)		4600-1¼ 452 (500-1¼)	4600-1½ 452 (500-1½)
CIRCLING	4600-1 452 (500-1)	4680-1 532 (600-1)	4680-1½ 532 (600-1½)	4720-2 572 (600-2)

REIL Rwys 3, 12, 21 and 30 L
MIRL Rwys 3-21 and 12-30 L

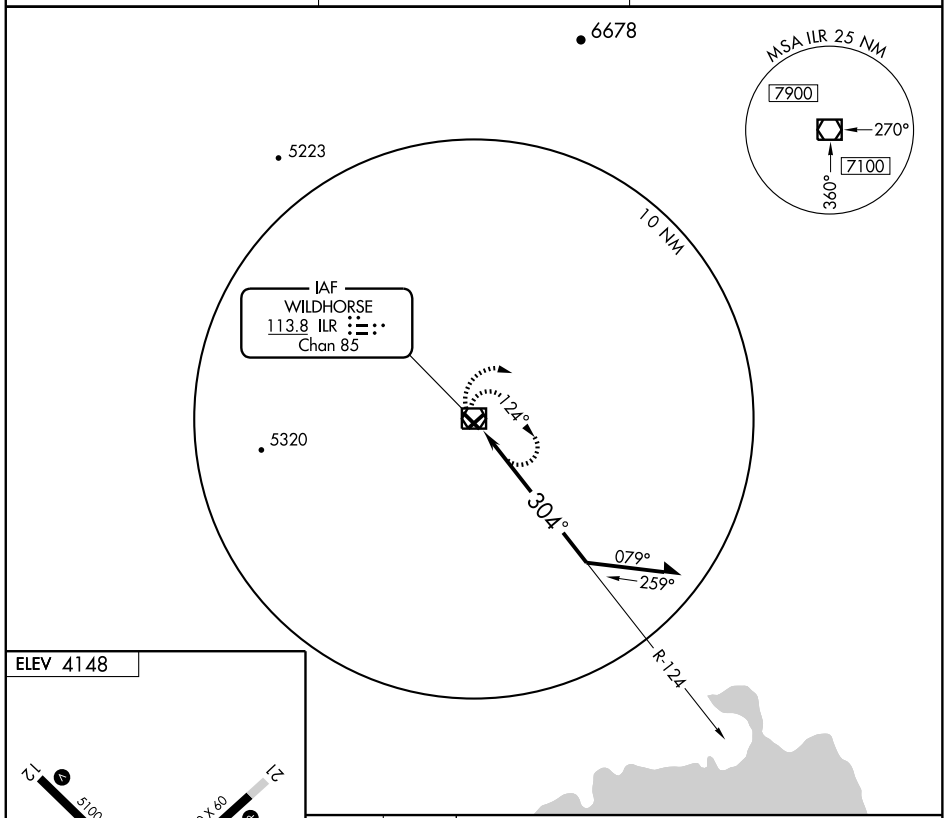
NW-1, 03 JUN 2010 to 01 JUL 2010

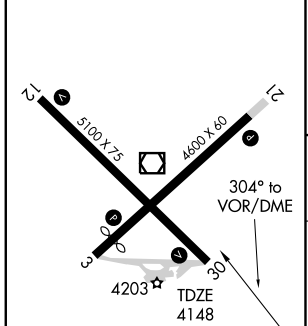
VOR/DME ILR	APP CRS	Rwy ldg	5100
113.8	304°	TDZE	4148
Chan 85		Apt Elev	4148

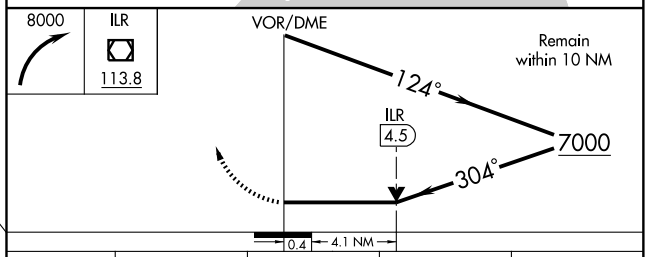
VOR RWY 30
BURNS MUNI (BNO)

MISSED APPROACH: Climbing right turn to 8000 in ILR VOR/DME holding pattern.

ASOS	MC MINNVILLE RADIO	UNICOM
135.575	122.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-30	5500-1¼ 1352 (1400-1¼)	5500-1½ 1352 (1400-1½)	5500-3	1352 (1400-3)
CIRCLING	5500-1¼ 1352 (1400-1¼)	5500-1½ 1352 (1400-1½)	5500-3	1352 (1400-3)

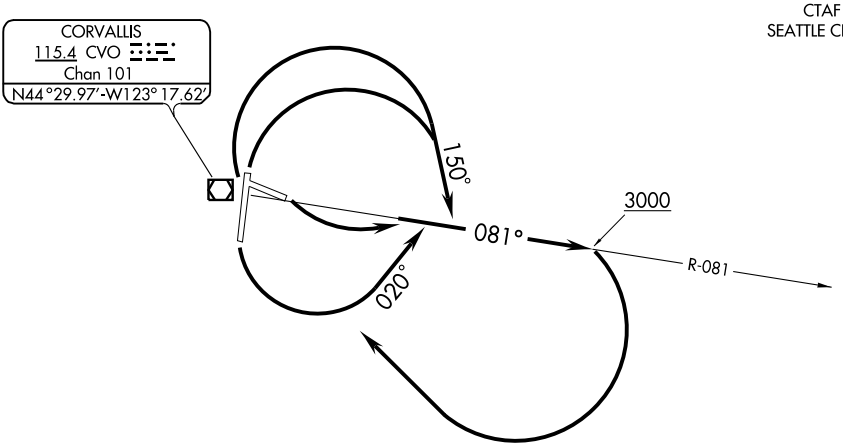
REIL Rwys 3, 12, 21 and 30 L
MIRL Rwys 3-21 and 12-30 L

NW-1, 03 JUN 2010 to 01 JUL 2010

CORVALLIS ONE DEPARTURE

CORVALLIS MUNI (CVO)
CORVALLIS, OREGON

AWOS-3 135.775
CASCADE DEP CON ★
127.5 348.7
CTAF 123.0
SEATTLE CENTER
125.8



TAKEOFF MINIMUMS

Rwy 9, 200-1 or standard with minimum climb of 245' per NM to 500.
Rwys 17/35, standard.
Rwy 27, standard with minimum climb of 310' per NM to 2300.

TAKEOFF OBSTACLE NOTES

Rwy 9: Multiple trees and railroad beginning 549' from DER, 254' left of centerline, up to 153' AGL/383' MSL.
Multiple trees and railroad beginning 670' from DER, 5' right of centerline, up to 135' AGL/380' MSL.

Rwy 27: OL on GS 409' from DER, 325' left of centerline, 28' AGL/273' MSL.

Rwy 35: Multiple trees beginning 470' from DER, 544' left of centerline, up to 36' AGL/276' MSL.
Tree 2.3 NM from DER, 1976' left of centerline, 128' AGL/607' MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 9: Climbing left turn to 3000 via CVO R-081, thence. . . .

TAKE-OFF RUNWAY 17: Climbing left turn to 3000 via heading 020° and CVO R-081, thence. . . .

TAKE-OFF RUNWAYS 27 and 35: Climbing right turn to 3000 via heading 150° and CVO R-081, thence. . . .

.... climbing right turn to 4000 direct CVO VOR/DME. Continue climb on course to MEA for route of flight.

LOST COMMUNICATIONS: If not in contact with ATC upon reaching 3000', continue climb to assigned altitude direct CVO VOR/DME. Thence via assigned route of flight.

LOC I-CVO	APP CRS	Rwy ldg	5900
111.9	169°	TDZE	244
		Apt Elev	246

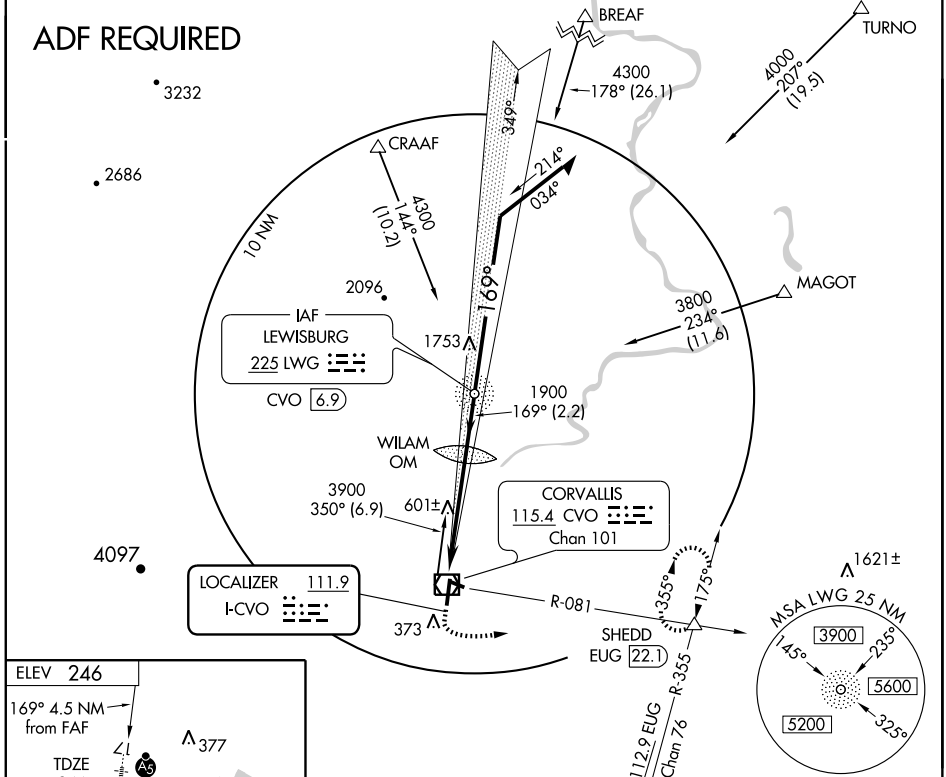
ILS RWY 17
CORVALLIS MUNI (CVO)

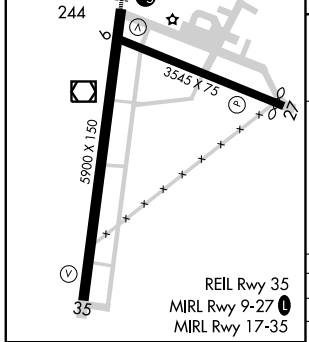
T
A NA

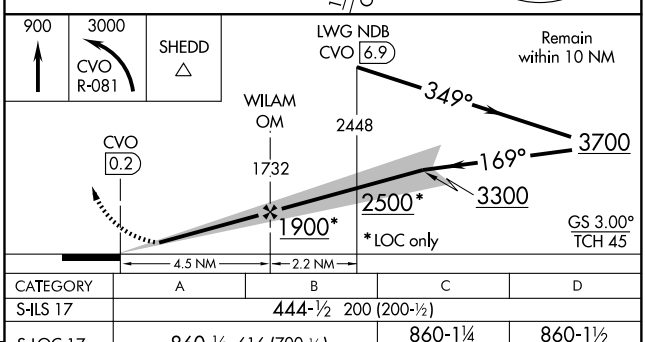
MALSR

MISSED APPROACH: Climb to 900 then climbing left turn to 3000 via the CVO R-081 to SHEDD Int and hold.

AWOS-3	CASCADE APP CON★	UNICOM
135.775	127.5 348.7	123.0 (CTAF) L







FAF to MAP 4.5 NM					
Knots	60	90	120	150	180
Min:Sec	4:30	3:00	2:15	1:48	1:30

CATEGORY	A	B	C	D
S-ILS 17	444-½ 200 (200-½)			
S-LOC 17	860-½ 616 (700-½)		860-1¼ 616 (700-1¼)	860-1½ 616 (700-1½)
CIRCLING	860-1 614 (700-1)		860-1¾ 614 (700-1¾)	880-2 634 (700-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

NDB LWG 225	APP CRS 170°	Rwy ldg 5900 TDZE 244 Apt Elev 246

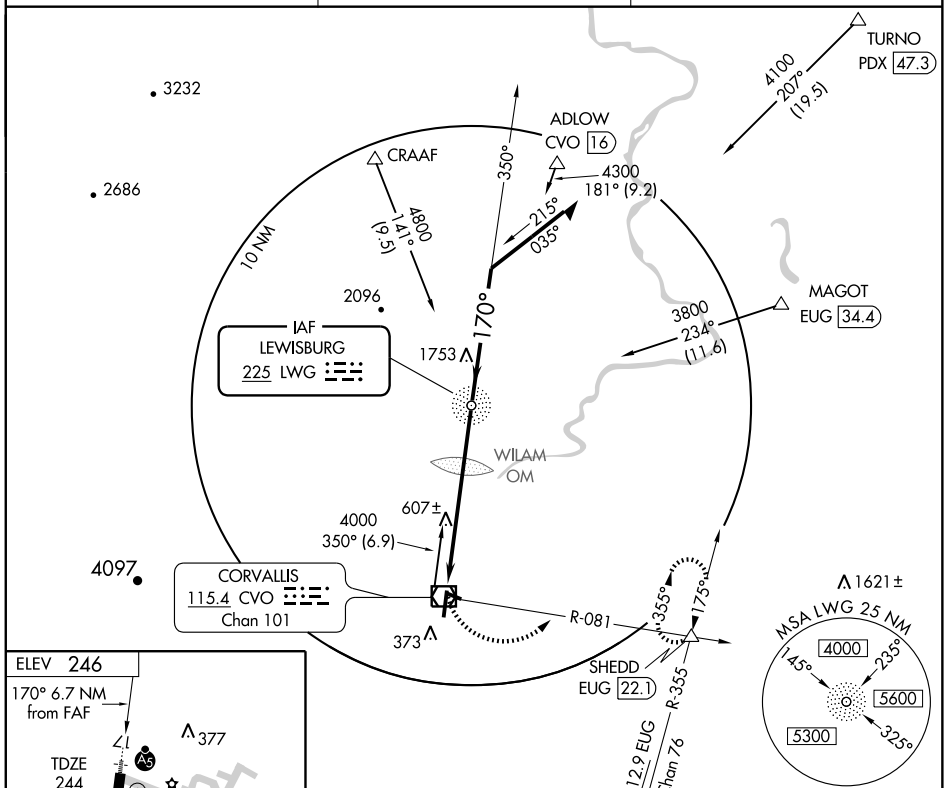
NDB RWY 17
CORVALLIS MUNI (CVO)

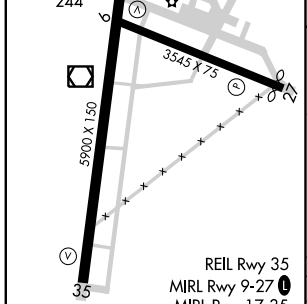
NA

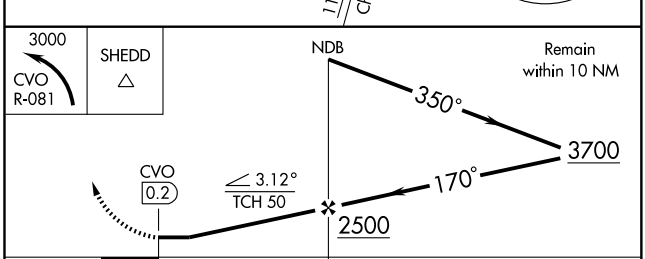
MALSR

MISSED APPROACH: Climbing left turn to 3000 via the CVO R-081 to SHEDD Int/EUG 22.1 DME and hold.

AWOS-3	CASCADE APP CON ★	UNICOM
135.775	127.5 348.7	123.0 (CTAF)







FAF to MAP 6.7 NM					
Knots	60	90	120	150	180
Min:Sec	6:42	4:28	3:21	2:41	2:14

CATEGORY	A	B	C	D
S-17	960-¾ 716 (800-¾)		960-1½ 716 (800-1½)	960-2 716 (800-2)
CIRCLING	960-1 714 (800-1)		960-2 714 (800-2)	960-2¼ 714 (800-2¼)

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 78311 W17A	APP CRS 169°	Rwy ldg 5900 TDZE 248 Apt Elev 250

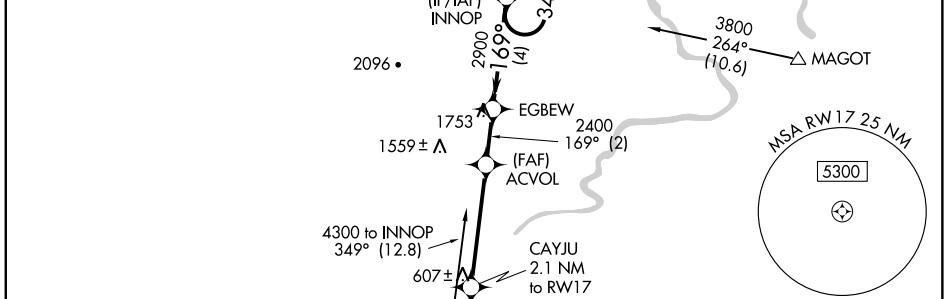
RNAV (GPS) RWY 17
CORVALLIS MUNI (CVO)

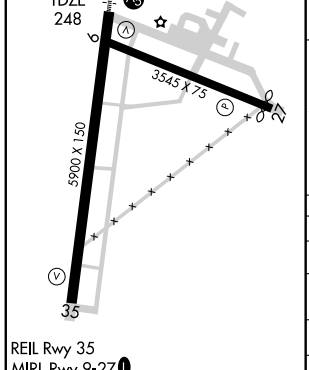
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. Inoperative table does not apply to LNAV Cats A and B. For inoperative MALSR increase LNAV Cats C and D visibility to 1¼.

MALSR

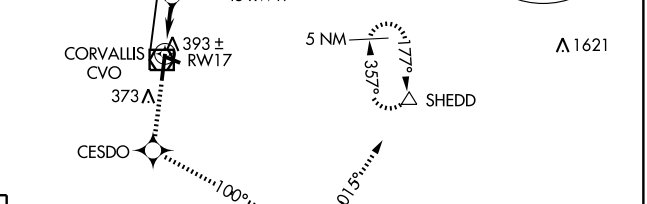
MISSED APPROACH: Climb to 3000 direct CESDO and via 100° track to ADKEW and via 015° track to SHEDD and hold.

AWOS-3	CASCADE APP CON *	UNICOM
135.775	127.5 348.7	123.0 (CTAF) L





REIL Rwy 35
MIRL Rwy 9-27 L
MIRL Rwy 17-35



CATEGORY	A	B	C	D
LPV DA	582-1	334 (400-1)		
LNAV/VNAV DA	670-1	422 (500-1)		
LNAV MDA	660-1	412 (500-1)		
CIRCLING	720-1 470 (500-1)		720-1½ 470 (500-1½)	900-2 650 (700-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

CORVALLIS, OREGON

AL-782 (FAA)

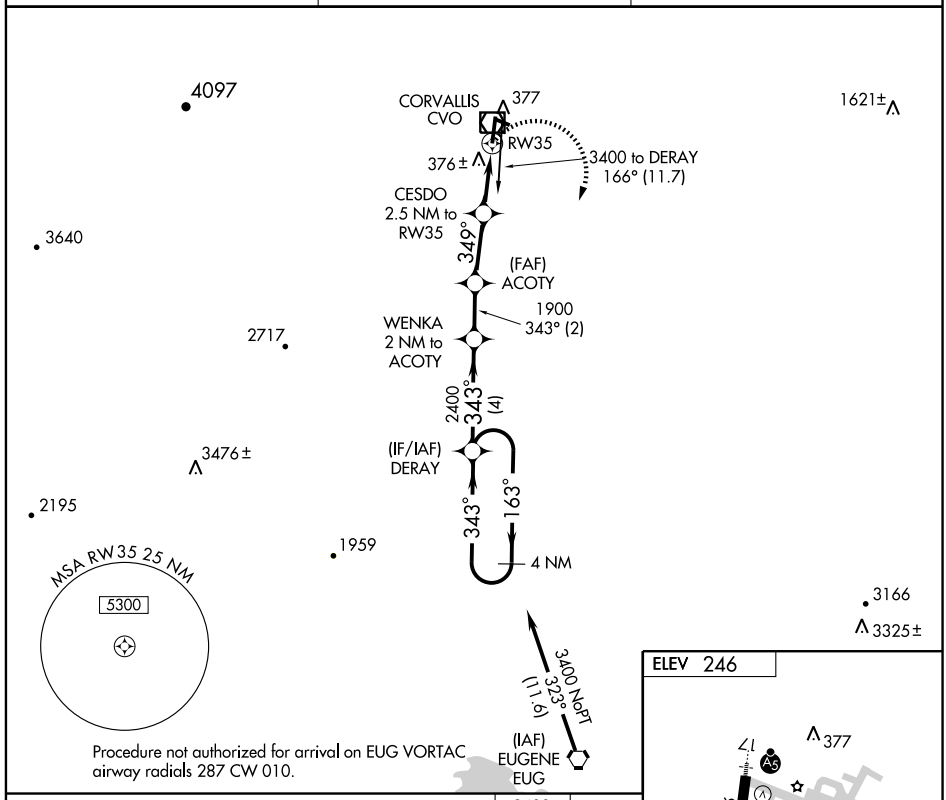
APP CRS	Rwy ldg	5900
349°	TDZE	246
	Apt Elev	246

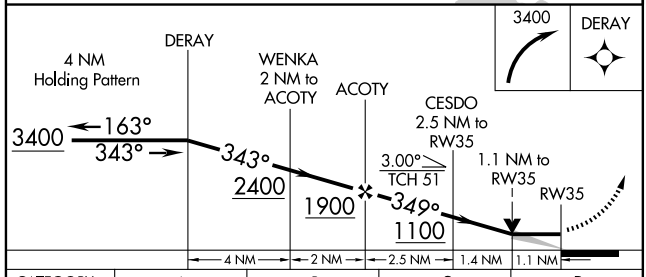
RNAV (GPS) RWY 35
CORVALLIS MUNI (CVO)

T
A NA GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

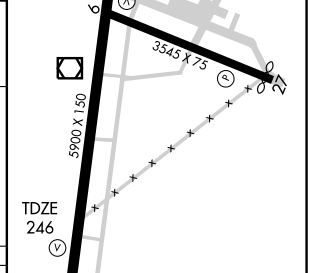
MISSED APPROACH: Climbing right turn to 3400 direct DERAY WP and hold.

AWOS-3	CASCADE APP CON ★	UNICOM
135.775	127.5 348.7	123.0 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	660-1 414 (500-1)		660-1¼ 414 (500-1¼)	
CIRCLING	720-1 474 (500-1)		720-1½ 474 (500-1½)	840-2 594 (600-2)

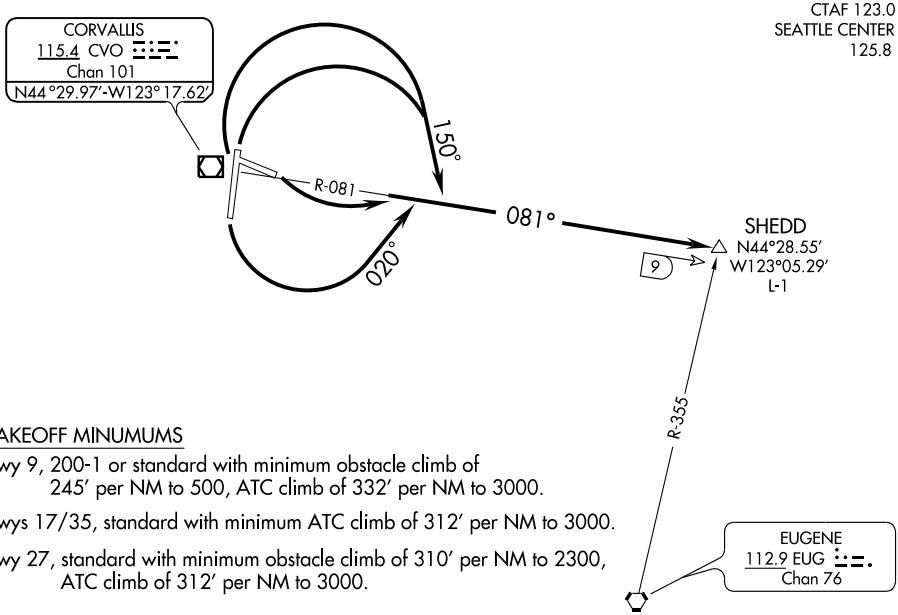


NW-1, 03 JUN 2010 to 01 JUL 2010

SHEDD ONE DEPARTURE

CORVALLIS MUNI (CVO)
CORVALLIS, OREGON

AWOS-3 135.775
CASCADE DEP CON ★
127.5 348.7
CTAF 123.0
SEATTLE CENTER
125.8



TAKEOFF MINUMUMS

Rwy 9, 200-1 or standard with minimum obstacle climb of 245′ per NM to 500, ATC climb of 332′ per NM to 3000.

Rwys 17/35, standard with minimum ATC climb of 312′ per NM to 3000.

Rwy 27, standard with minimum obstacle climb of 310′ per NM to 2300, ATC climb of 312′ per NM to 3000.

TAKEOFF OBSTACLE NOTES

Rwy 9: Multiple trees and railroad beginning 549′ from DER, 254′ left of centerline, up to 153′ AGL/383′ MSL.
Multiple trees and railroad beginning 670′ from DER, 5′ right of centerline, up to 135′ AGL/380′ MSL.

Rwy 27: OL on GS 409′ from DER, 325′ left of centerline, 28′ AGL/273′ MSL.

Rwy 35: Multiple trees beginning 470′ from DER, 544′ left of centerline, up to 36′ AGL/276′ MSL.
Tree 2.3 NM from DER, 1976′ left of centerline, 128′ AGL/607′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 9: Climbing left turn to 3000 via CVO R-081 to SHEDD INT, thence. . . .

TAKE-OFF RUNWAY 17: Climbing left turn to 3000 via heading 020° and CVO R-081 to SHEDD INT, thence. . . .

TAKE-OFF RUNWAYS 27 and 35: Climbing right turn to 3000 via heading 150° and CVO R-081 to SHEDD INT, thence. . . .

. . . .via assigned route/clearance.

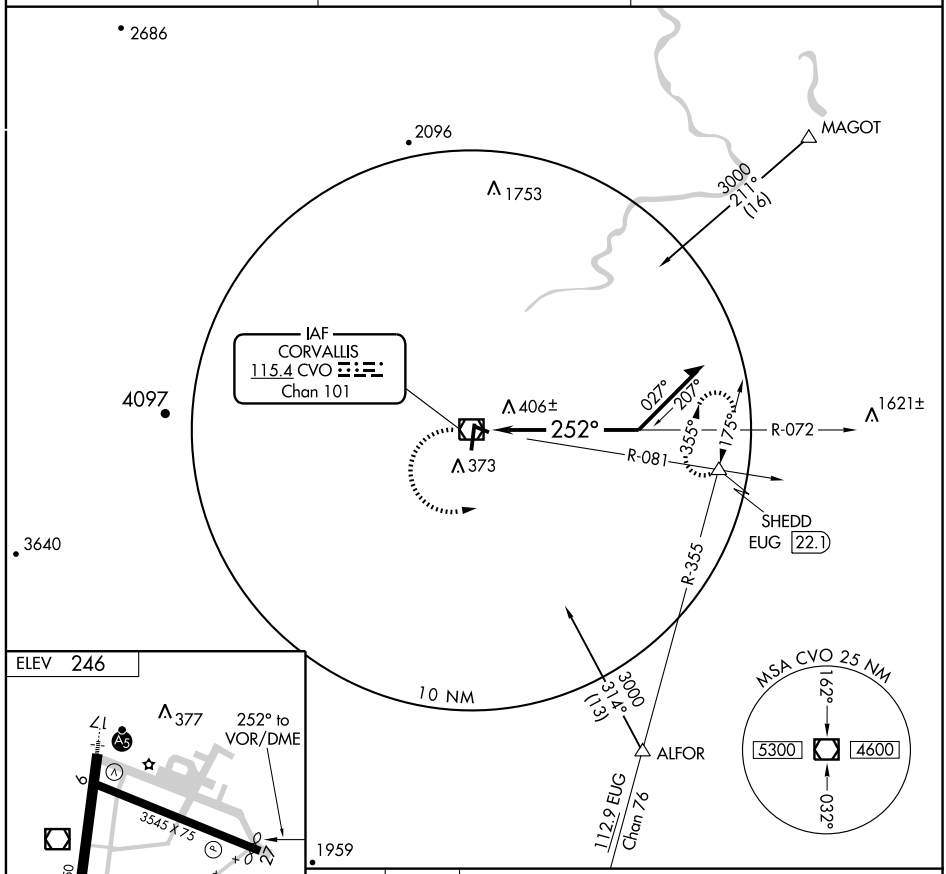
LOST COMMUNICATIONS: If not in contact with ATC upon reaching 3000′, continue climb to assigned altitude direct CVO VOR/DME. Thence via assigned route of flight.

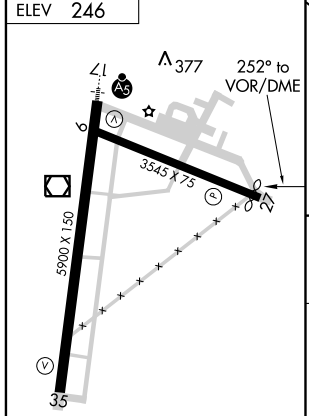
VOR/DME CVO 115.4 Chan 101	APP CRS 252°	Rwy ldg N/A TDZE N/A Apt Elev 246

VOR-A
CORVALLIS MUNI (CVO)

MISSED APPROACH: Climbing left turn to 3000 via CVO VOR/DME R-081 to SHEDD Int/EUG 22.1 DME and hold.

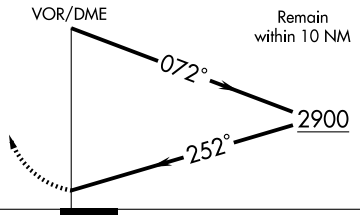
AWOS-3	CASCADE APP CON★	UNICOM
135.775	127.5 348.7	123.0 (CTAF) L





REIL Rwy 35
MIRL Rwy 9-27 L
MIRL Rwy 17-35

3000 CVO R-081	SHEDD △



Remain within 10 NM

CATEGORY	A	B	C	D
CIRCLING	1400-1¼ 1154 (1200-1¼)	1400-1½ 1154 (1200-1½)	1400-3 1154 (1200-3)	

VOR/DME CVO 115.4 Chan 101	APP CRS 177°	Rwy ldg 5900 TDZE 244 Apt Elev 246

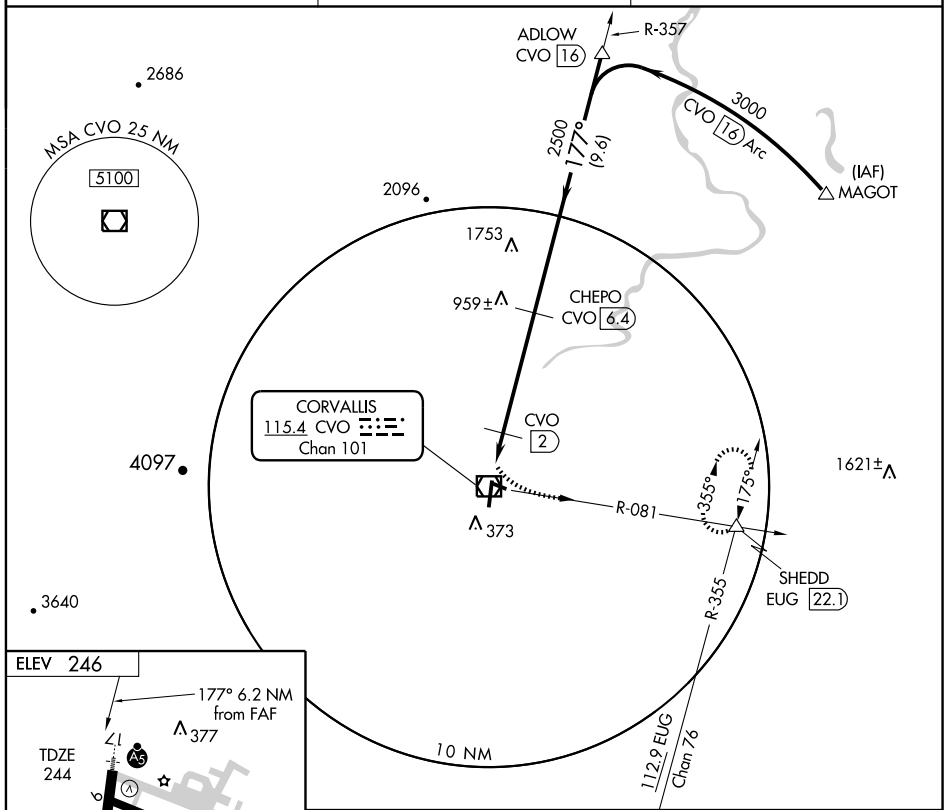
VOR/DME RWY 17
CORVALLIS MUNI (CVO)

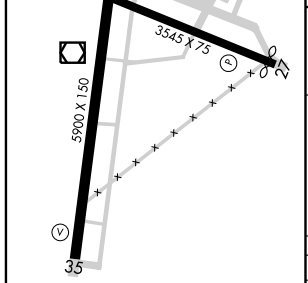
For inoperative MALSR, increase S-17 Cat. D to 1¼ mile.

MALSR

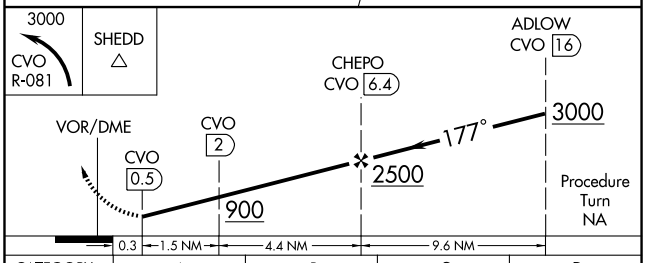
MISSED APPROACH: Climbing left turn to 3000 via CVO R-081 to SHEDD Int and hold.

AWOS-3	CASCADE APP CON *	UNICOM
135.775	127.5 348.7	123.0 (CTAF)





REIL Rwy 35
MIRL Rwy 9-27
MIRL Rwy 17-35



CATEGORY	A	B	C	D
S-17	660-½ 416 (500-½)		660-¾ 416 (500-¾)	660-1 416 (500-1)
CIRCLING	720-1 474 (500-1)		720-1½ 474 (500-1½)	880-2 634 (700-2)

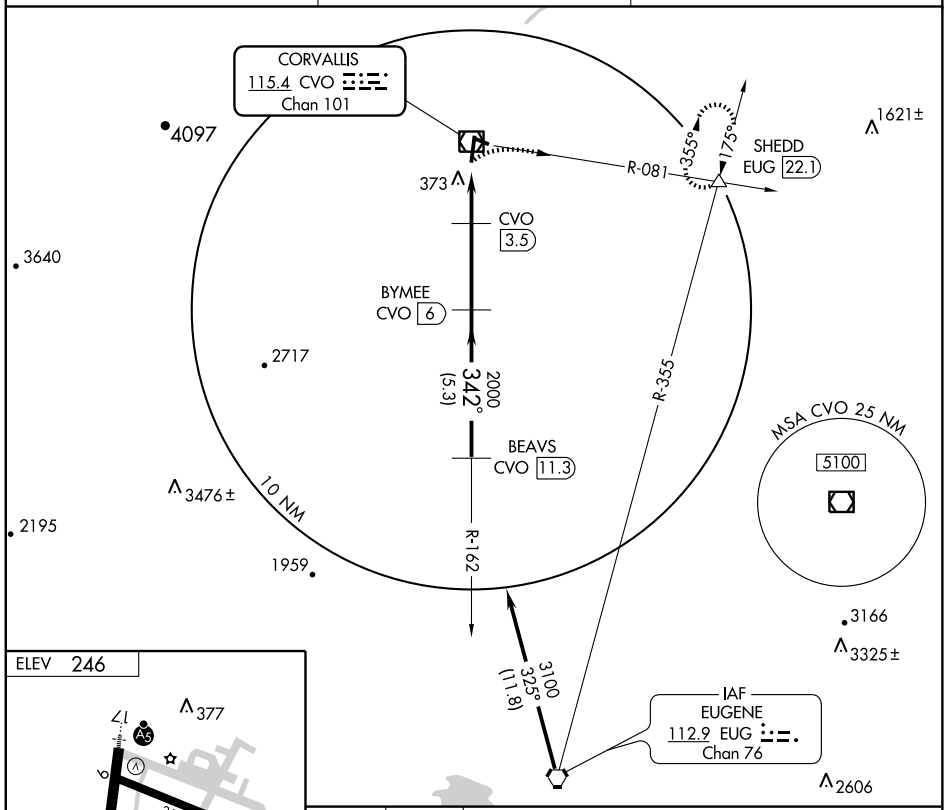
NW-1, 03 JUN 2010 to 01 JUL 2010

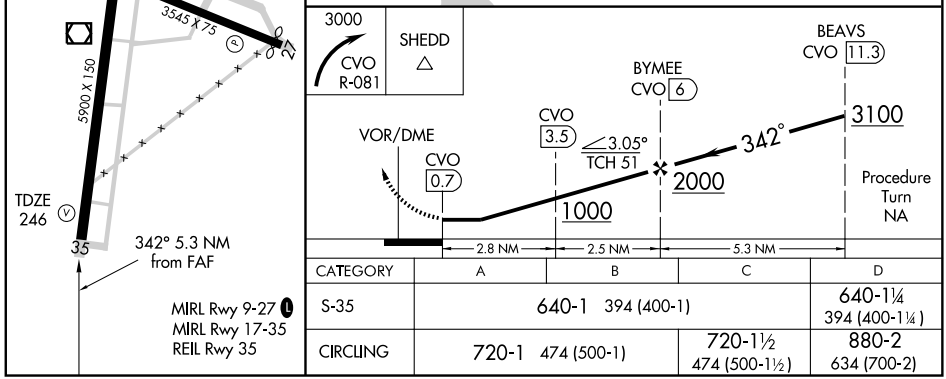
VOR/DME CVO	APP CRS	Rwy ldg	5900
115.4	342°	TDZE	246
Chan 101		Apt Elev	246

VOR/DME RWY 35
CORVALLIS MUNI (CVO)

MISSED APPROACH: Climbing right turn to 3000 via CVO R-081to SHEDD Int and hold.

AWOS-3	CASCADE APP CON ★	UNICOM
135.775	127.5 348.7	123.0 (CTAF)





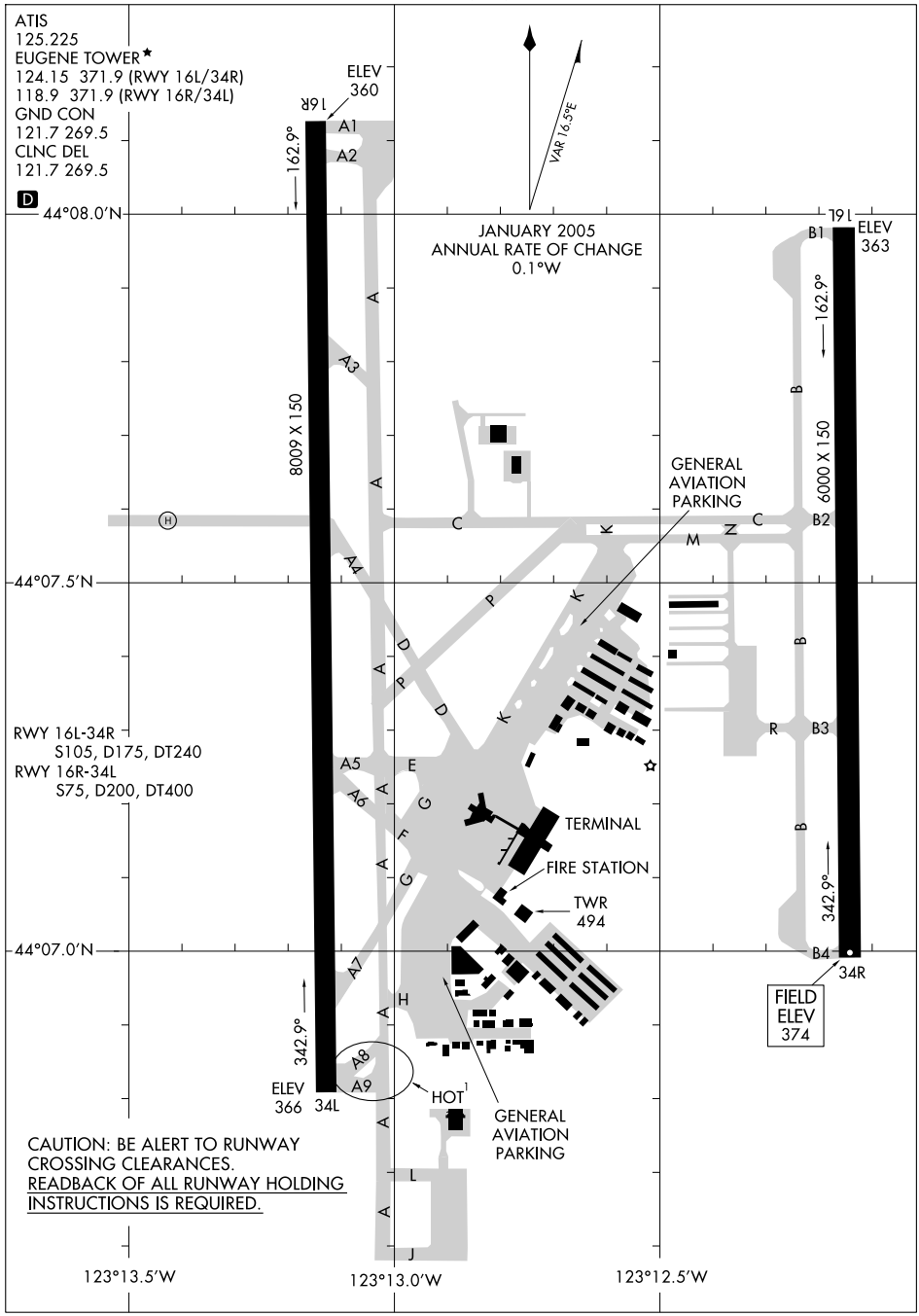
CATEGORY	A	B	C	D
S-35	640-1 394 (400-1)			640-1¼ 394 (400-1¼)
CIRCLING	720-1 474 (500-1)		720-1½ 474 (500-1½)	880-2 634 (700-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-140 (FAA)

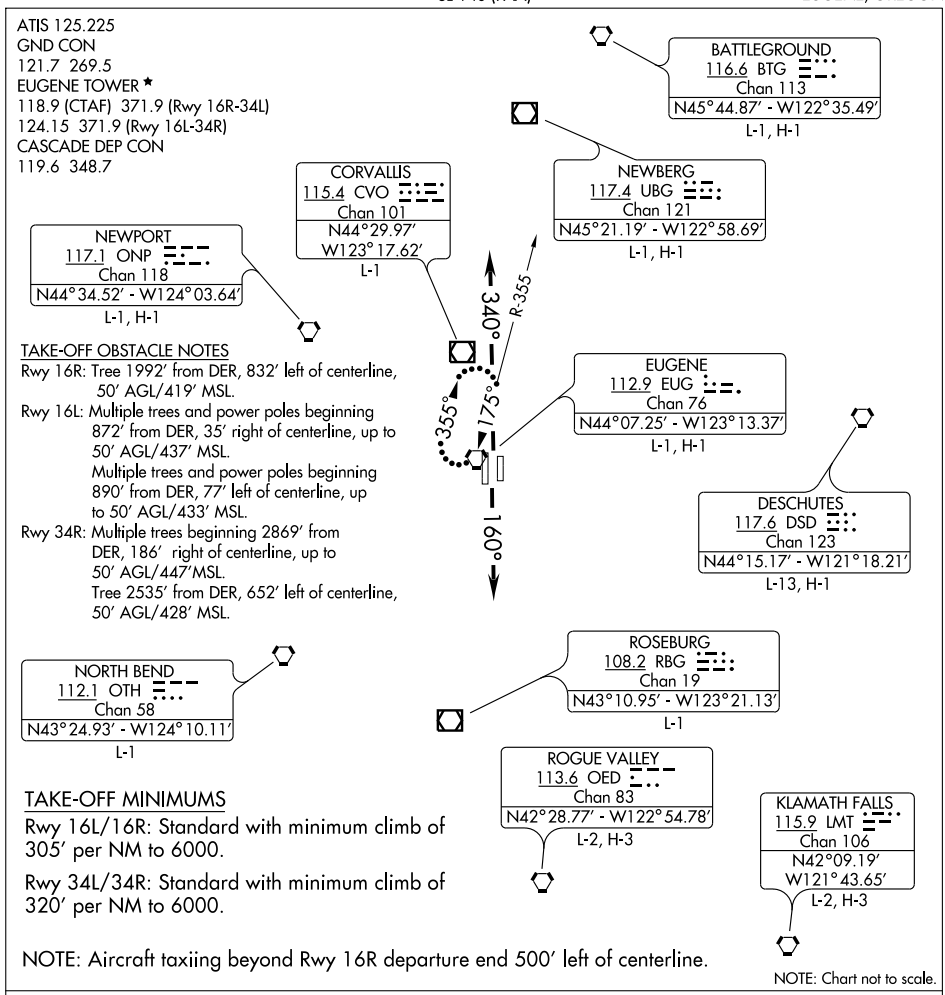
EUGENE/MAHLON SWEET FIELD (EUG)
EUGENE, OREGON



EUGENE SEVEN DEPARTURE

SL-140 (FAA)

ATIS 125.225
GND CON
121.7 269.5
EUGENE TOWER ★
118.9 (CTAF) 371.9 (Rwy 16R-34L)
124.15 371.9 (Rwy 16L-34R)
CASCADE DEP CON
119.6 348.7



TAKE-OFF OBSTACLE NOTES

Rwy 16R: Tree 1992′ from DER, 832′ left of centerline, 50′ AGL/419′ MSL.

Rwy 16L: Multiple trees and power poles beginning 872′ from DER, 35′ right of centerline, up to 50′ AGL/437′ MSL.
Multiple trees and power poles beginning 890′ from DER, 77′ left of centerline, up to 50′ AGL/433′ MSL.

Rwy 34R: Multiple trees beginning 2869′ from DER, 186′ right of centerline, up to 50′ AGL/447′MSL.
Tree 2535′ from DER, 652′ left of centerline, 50′ AGL/428′ MSL.

TAKE-OFF MINIMUMS

Rwy 16L/16R: Standard with minimum climb of 305′ per NM to 6000.

Rwy 34L/34R: Standard with minimum climb of 320′ per NM to 6000.

NOTE: Aircraft taxiing beyond Rwy 16R departure end 500′ left of centerline.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 16L and 16R: Climb via heading 160° (or ATC assigned heading) for vectors to assigned route/fix . . . .
TAKE-OFF RUNWAYS 34L and 34R: Climb via heading 340° (or ATC assigned heading) for vectors to assigned route/fix . . . .

. . . . maintain 9000 or assigned altitude, expect filed altitude/flight level five minutes after departure.

LOST COMMUNICATIONS: If not in contact with ATC after reaching 3000′, continue climb to assigned altitude direct EUG VORTAC, climb in EUG VORTAC holding pattern (hold N, RT, 175° inbound) to cross EUG VORTAC at or above MEA before proceeding enroute.

APP CRS	Rwy ldg	8009
160°	TDZE	363
	Apt Elev	374

GPS RWY 16R

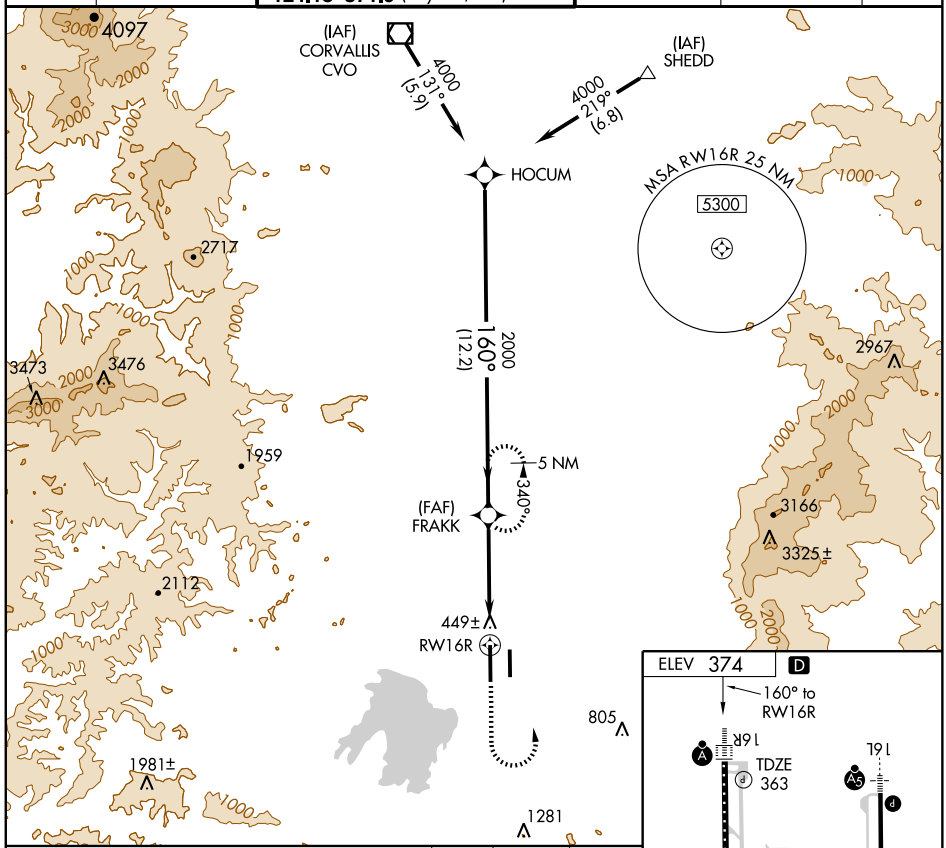
EUGENE/MAHLON SWEET FIELD (EUG)

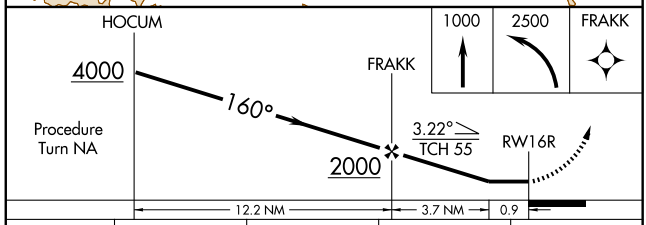
NA Inoperative table does not apply to S-16R Cat D.

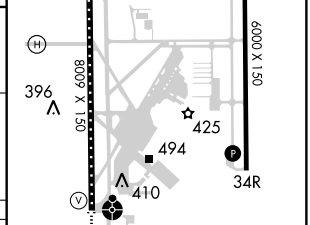
ALSF-2

MISSED APPROACH: Climb to 1000 then climbing left turn to 2500 direct FRAKK WP and hold.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
S-16R	700/24 337 (400-½)			700/50 337 (400-1)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

TDZ/CL Rwy 16R
REIL Rwy 34R L
HIRL Rwys 16L-34R and 16R-34L

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-ADE	APP CRS	Rwy ldg	6000
111.75	160°	TDZE	369
Chan 54 (Y)		Apt Elev	374

ILS or LOC/DME RWY 16L

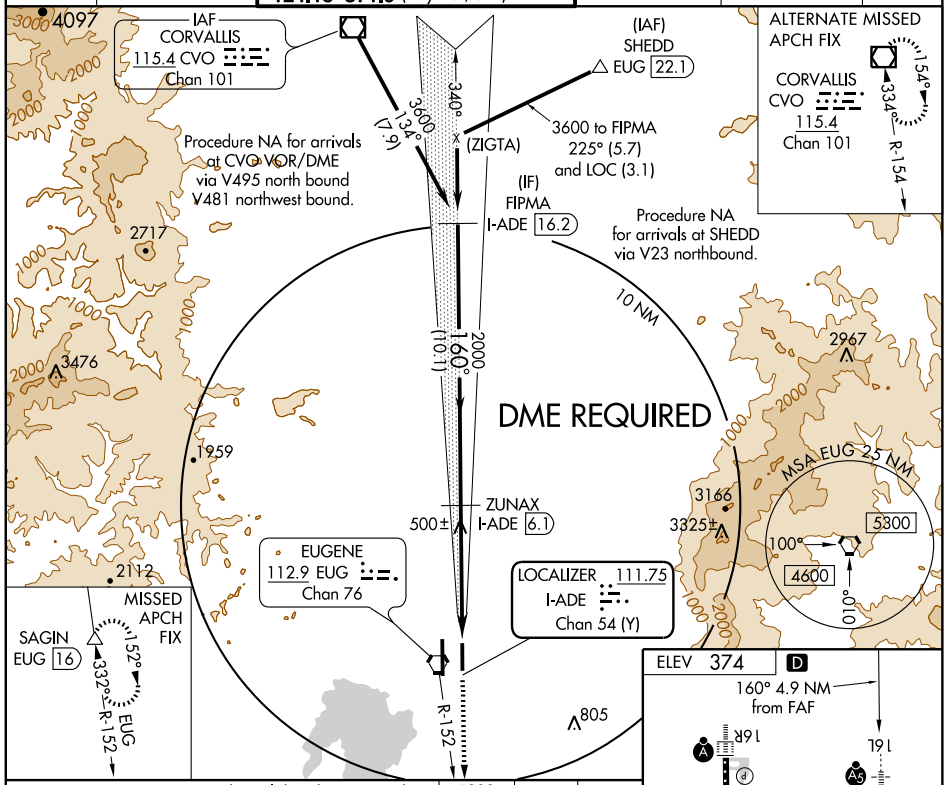
EUGENE/ MAHLON SWEET FIELD (EUG)

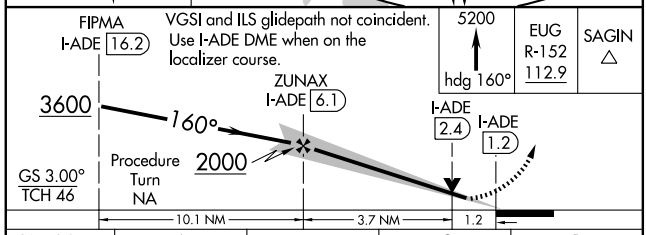
If local altimeter setting not received, use Corvallis altimeter setting and increase all DAs 70 feet, and all MDAs 80 feet. VDP NA when using Corvallis altimeter setting.

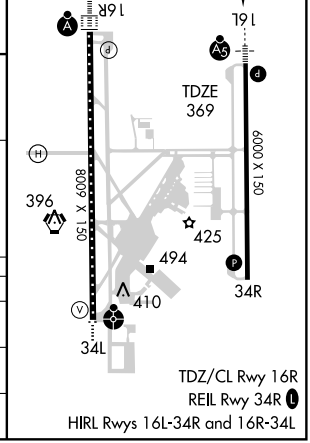
MALSR

MISSED APPROACH: Climb to 5200 via heading 160° and EUG VORTAC R-152 to SAGIN/EUG 16 DME and hold, continue climb-in-hold to 5200.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
S-ILS 16L	569-½ 200 (200-½)			
S-LOC 16L	800-½ 431 (500-½)		800-¾ 431 (500-¾)	800-1 431 (500-1)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-EUG	APP CRS	Rwy ldg	8009
110.1	160°	TDZE	364
Chan 38		Apt Elev	374

ILS or LOC/DME Z RWY 16R

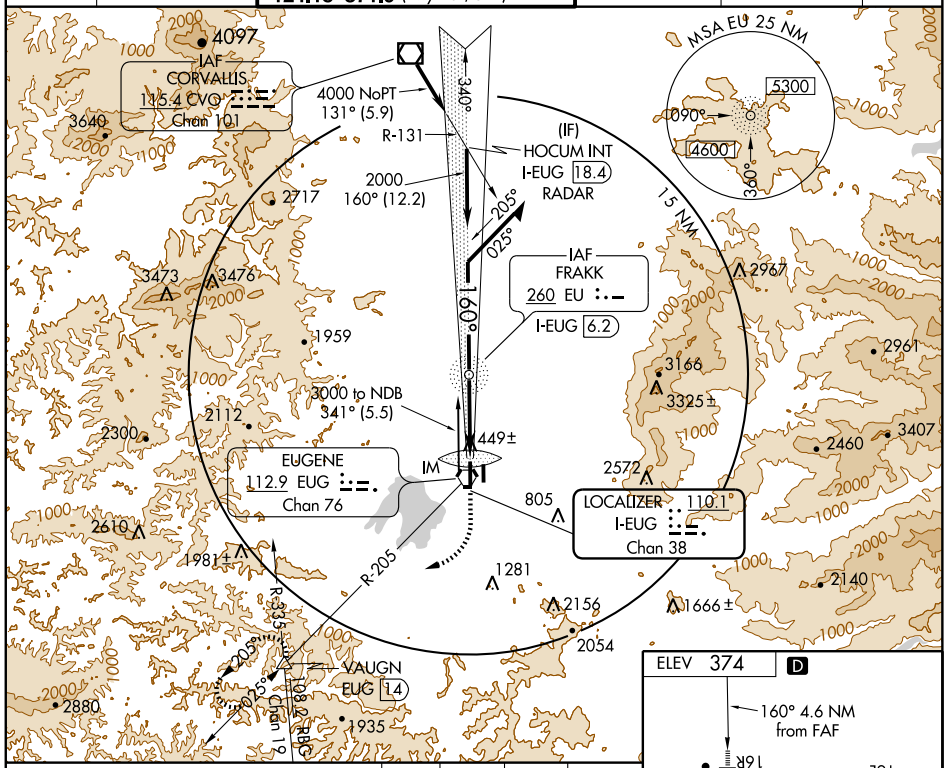
EUGENE/ MAHLON SWEET FIELD (EUG)

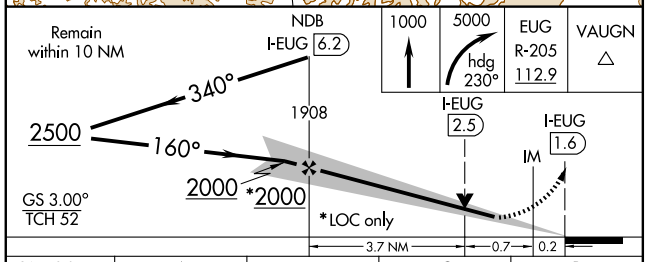
For inoperative ALSF-2: increase S-LOC 16R Cat D visibility to RVR 5000.
DME required.

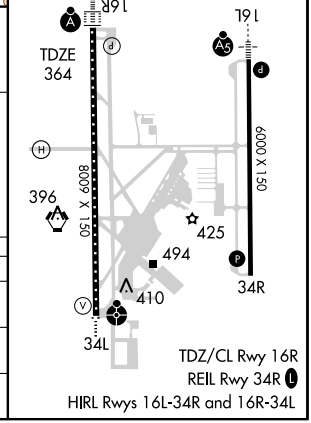
ALSF-2

MISSED APPROACH: Climb to 1000 then climbing right turn to 5000 via heading 230° and EUG R-205 to VAUGN/ EUG 14 DME and hold, continue climb-in-hold to 5000.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
S-ILS 16R	564/18 200 (200-½)			
S-LOC 16R	700/24 336 (400-½)			700/40 336 (400-¾)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-EUG	APP CRS	Rwy ldg	8009
110.1	160°	TDZE	364
Chan 38		Apt Elev	374

ILS or LOC Y RWY 16R

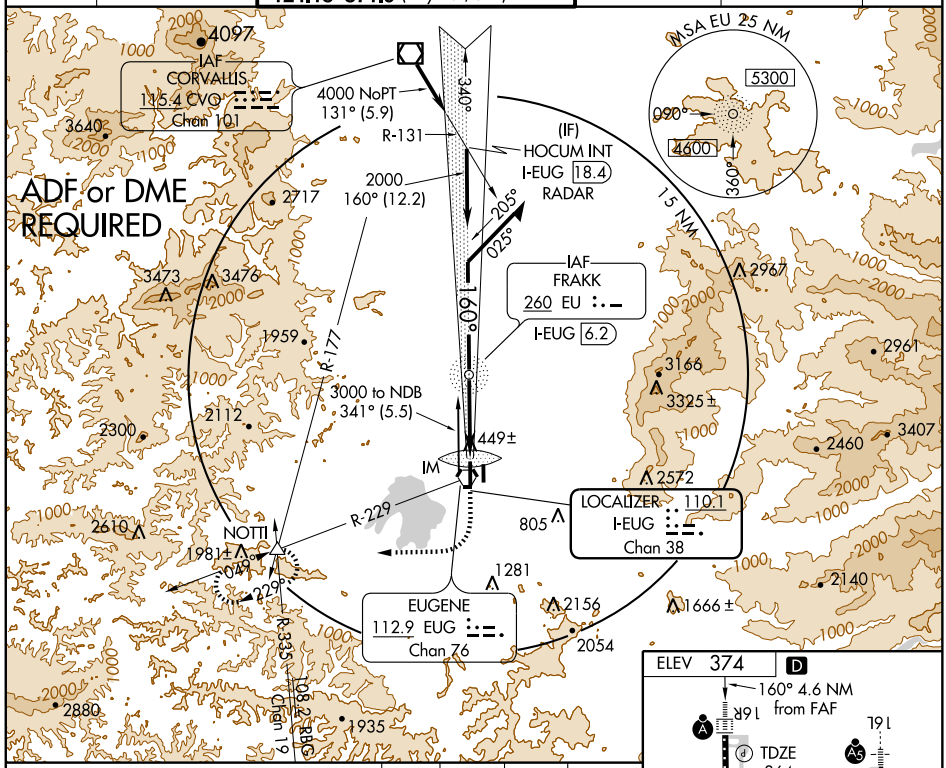
EUGENE/MAHLON SWEET FIELD (EUG)

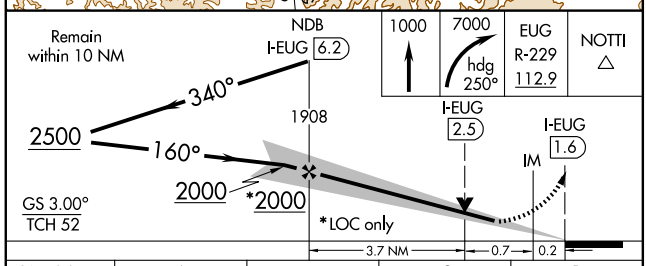
For inoperative ALSF-2: increase S-LOC 16R Cat D visibility to RVR 5000.

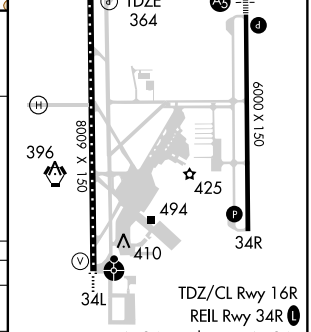
ALSF-2

MISSED APPROACH: Climb to 1000 then climbing right turn to 7000 via heading 250° and EUG R-229 to NOTTI INT and hold, continue climb-in-hold to 7000.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
S-ILS 16R	564/18 200 (200-½)			
S-LOC 16R	700/24 336 (400-½)			700/40 336 (400-¾)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

FAF to MAP 4.6 NM

Knots	60	90	120	150	180
Min:Sec	4:36	3:04	2:18	1:50	1:32

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-EUG	APP CRS	Rwy ldg	8009
110.1	160°	TDZE	364
Chan 38		Apt Elev	374

ILS RWY 16R (CAT II)

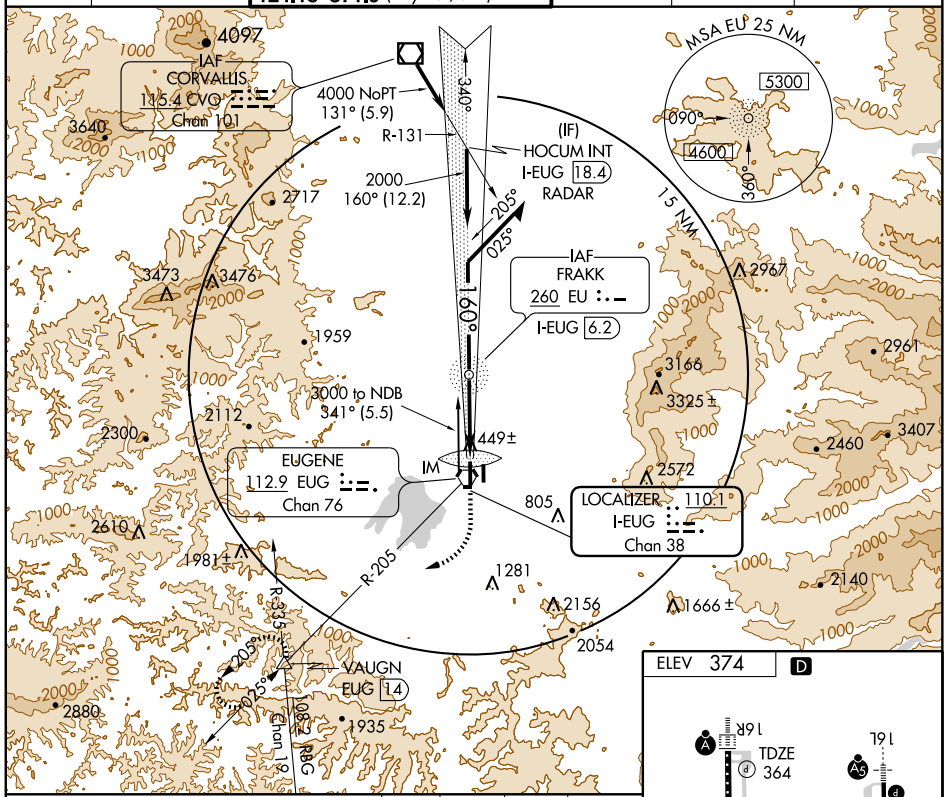
EUGENE/ MAHLON SWEET FIELD (EUG)

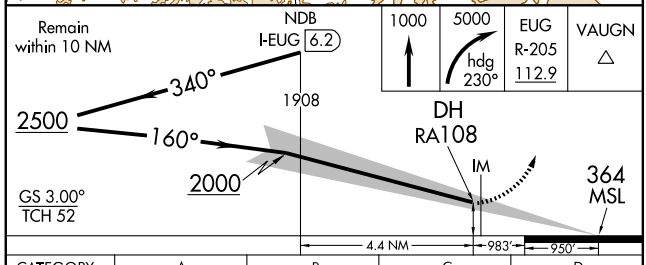
Cat II minimums not authorized when control tower closed.
DME required.

ALSF-2

MISSED APPROACH: Climb to 1000 then climbing right turn to 5000 via heading 230° and EUG R-205 to VAUGN/ EUG 14 DME and hold, continue climb-in-hold to 5000.

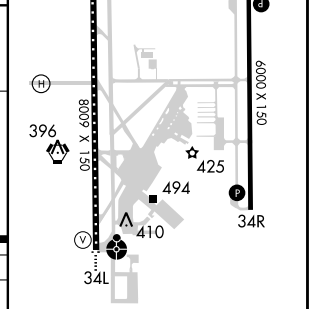
ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95





CATEGORY	A	B	C	D
S-ILS 16R	RA 108/12 100 DA 464			

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



TDZ/CL Rwy 16R
REIL Rwy 34R L
HIRL Rwys 16L-34R and 16R-34L

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-EUG	APP CRS	Rwy ldg	8009
110.1	160°	TDZE	364
Chan 38		Apt Elev	374

ILS RWY 16R (CAT III)

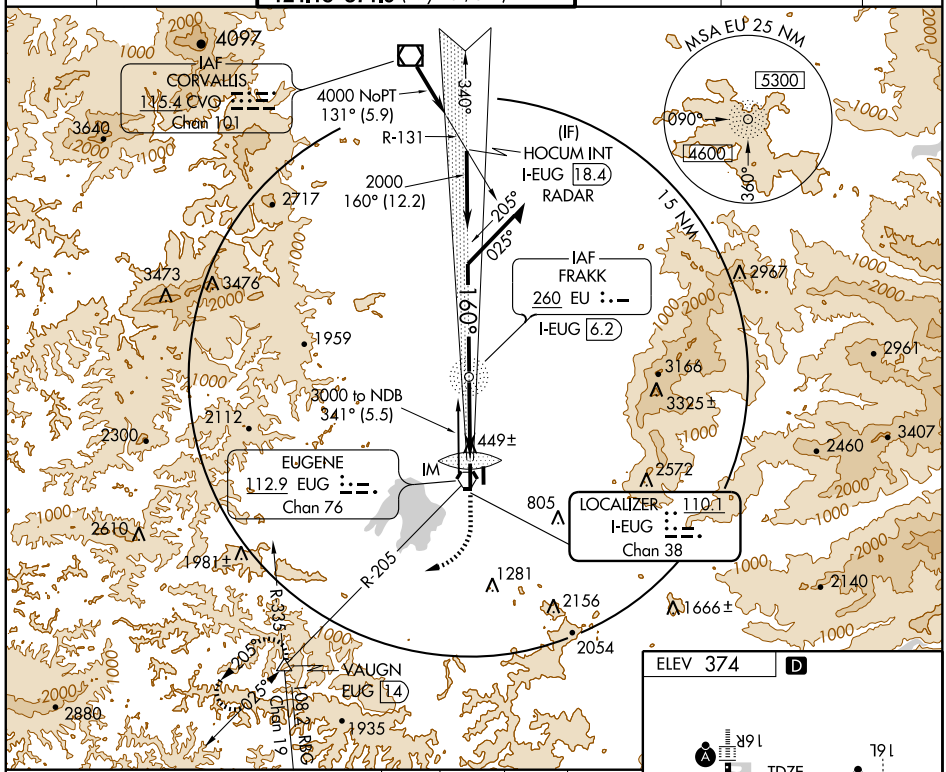
EUGENE/MAHLON SWEET FIELD (EUG)

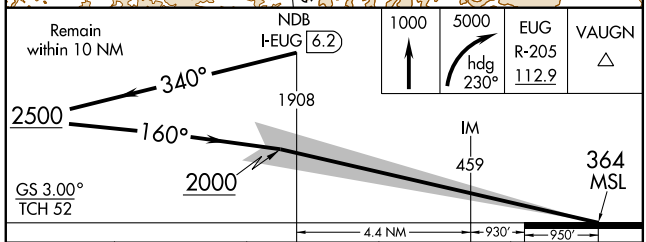
Cat III minimums not authorized when control tower closed.
DME required.

ALSF-2

MISSED APPROACH: Climb to 1000 then climbing right turn to 5000 via heading 230° and EUG R-205 to VAUGN/ EUG 14 DME and hold, continue climb-in-hold to 5000.

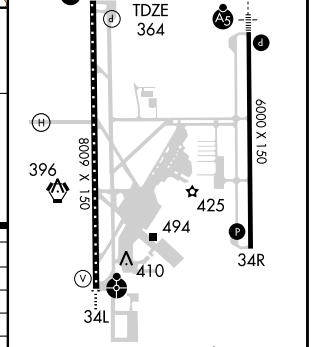
ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95





CATEGORY	A	B	C	D
S-ILS 16R		CAT IIIa	RVR 07	
S-ILS 16R		CAT IIIb	RVR 06	
S-ILS 16R		CAT IIIc	NA	

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED



TDZ/CL Rwy 16R
REIL Rwy 34R L
HIRL Rwys 16R-34L and 16L-34R

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 81827 W16A	APP CRS 160°	Rwy ldg 6000 TDZE 369 Apt Elev 374

RNAV (GPS) RWY 16L

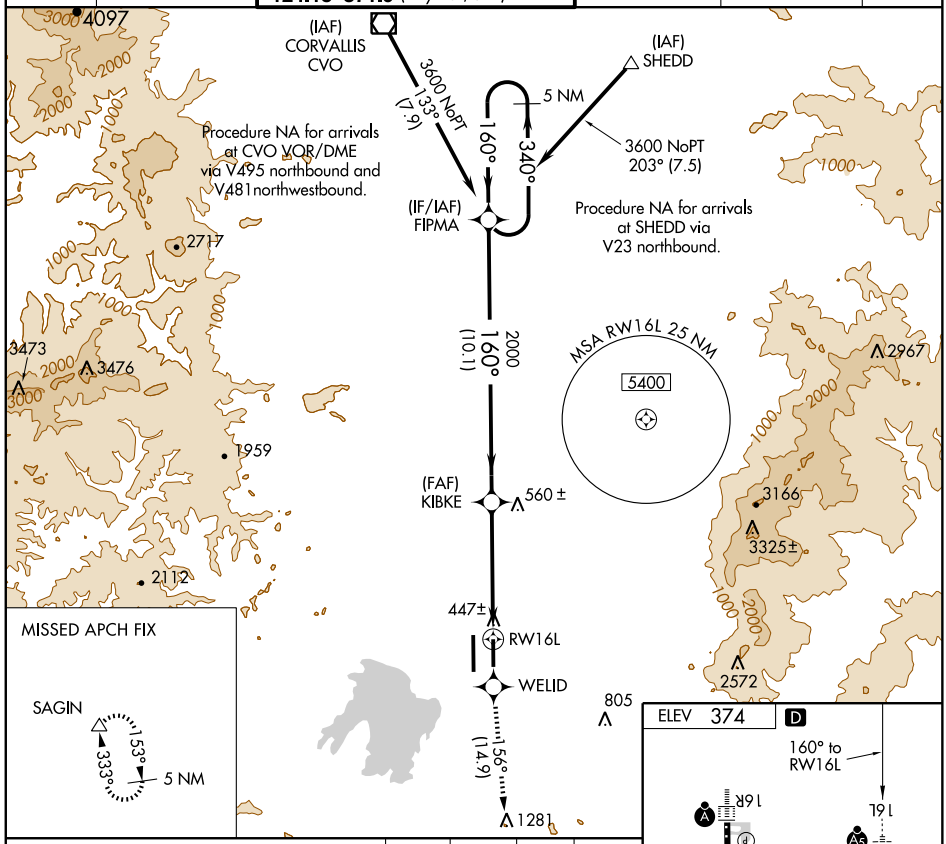
EUGENE/MAHLON SWEET FIELD (EUG)

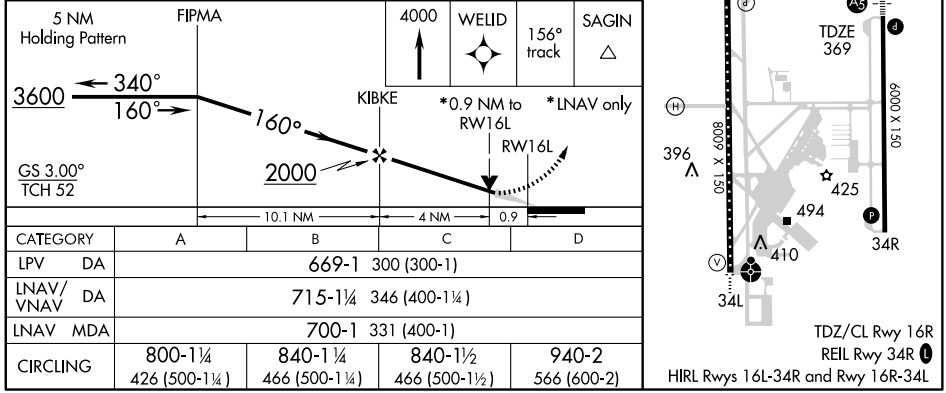
DME/DME RNP-0.3 NA.
Baro-VNAV NA below -15°C (5°F).

MALSR

MISSED APPROACH: Climb to 4000 direct WELID and via 156° track to SAGIN and hold, continue climb-in-hold to 4000.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95





CATEGORY	A	B	C	D
LPV DA	669-1 300 (300-1)			
LNAV/VNAV DA	715-1¼ 346 (400-1¼)			
LNAV MDA	700-1 331 (400-1)			
CIRCLING	800-1¼ 426 (500-1¼)	840-1¼ 466 (500-1¼)	840-1½ 466 (500-1½)	940-2 566 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 45600 W34A	APP CRS 340°	Rwy ldg 8009 TDZE 367 Apt Elev 374

RNAV (GPS) RWY 34L

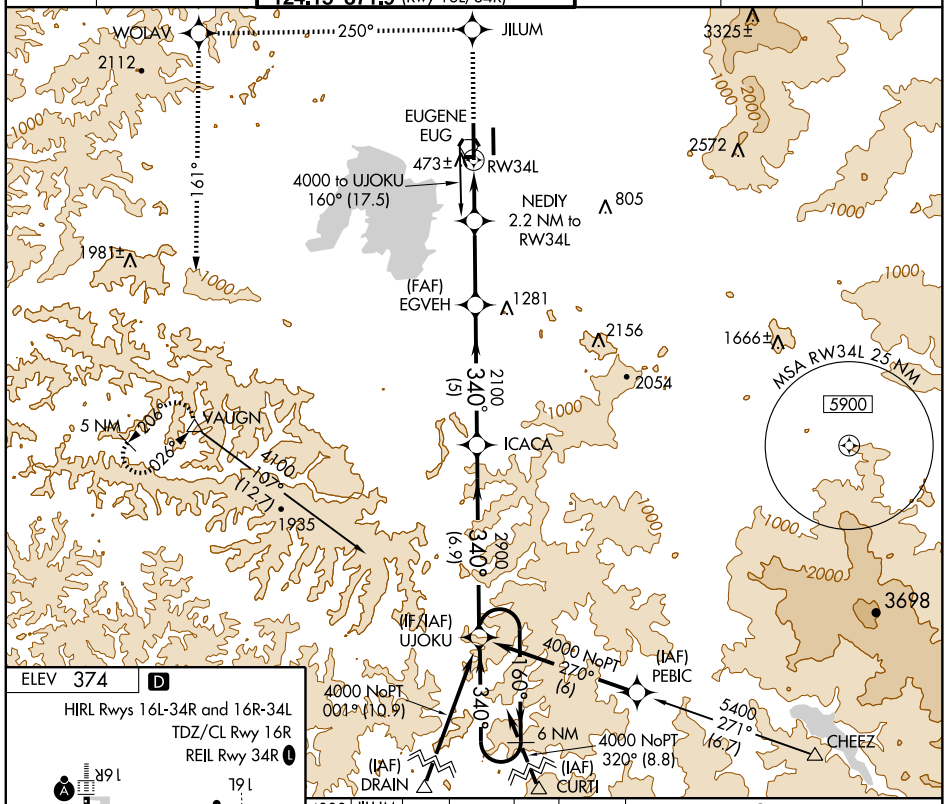
EUGENE/ MAHLON SWEET FIELD (EUG)

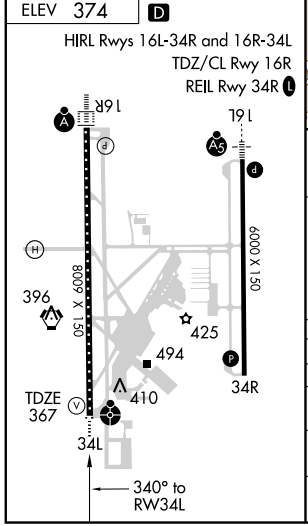
Inoperative table does not apply to LPV and LNAV/VNAV. Baro-VNAV NA below -15°C (5°F). DME/DME RNP-0.3 NA.

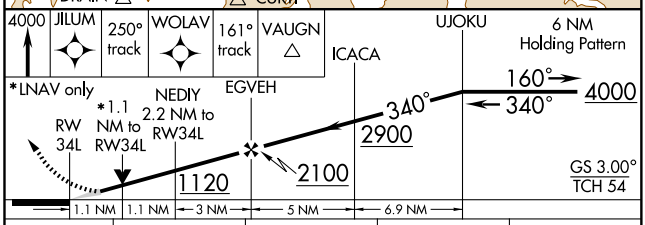
ODALS

MISSED APPROACH: Climb to 4000 direct JILUM and via 250° track to WOLAV and 161° track to VAUGN and hold.

ATIS	CASCADE APP CON	EUGENE TOWER★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
LPV DA	617/40 250 (300-¾)			
LNAV/ VNAV DA	744/60 377 (400-1¼)			
LNAV MDA	760/40 393 (400-¾)			760/60 393 (400-1¼)
CIRCLING	800-1¼ 426 (500-1¼)	840-1¼ 466 (500-1¼)	840-1½ 466 (500-1½)	940-2 566 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 81900 W34B	APP CRS 340°	Rwy ldg 6000 TDZE 374 Apt Elev 374

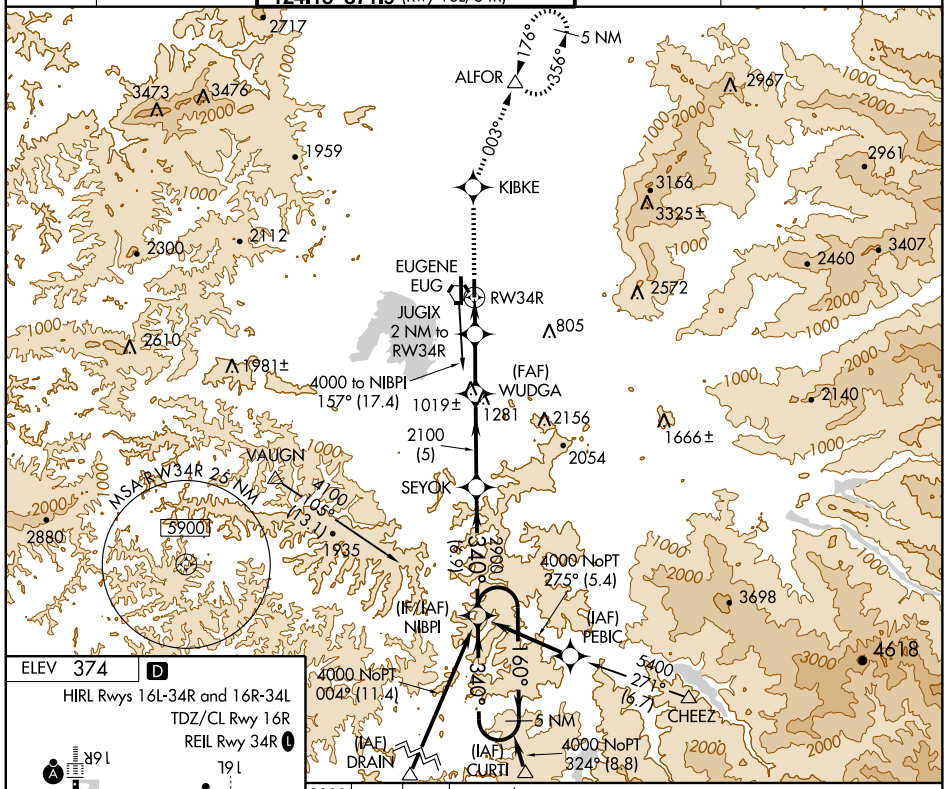
RNAV (GPS) RWY 34R

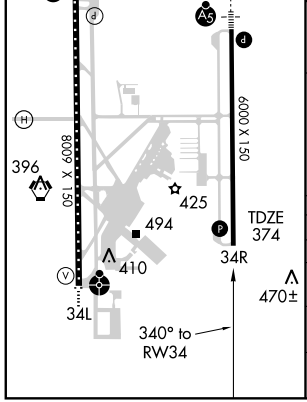
EUGENE/ MAHLON SWEET FIELD (EUG)

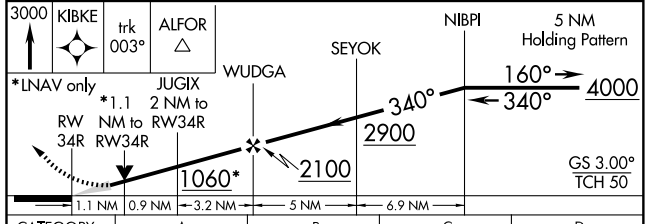
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 3000 direct KIBKE and via track 003° to ALFOR and hold.

ATIS	CASCADE APP CON	EUGENE TOWER*	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
LPV DA	658-1 284 (300-1)			
LNAV/VNAV DA	796-1½ 422 (500-1½)			
LNAV MDA	760-1 386 (400-1)			760-1¼ 386 (400-1¼)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC EUG 112.9 Chan 76	APP CRS 168°	Rwy ldg 8009 TDZE 363 Apt Elev 374

VOR/DME or TACAN RWY 16R

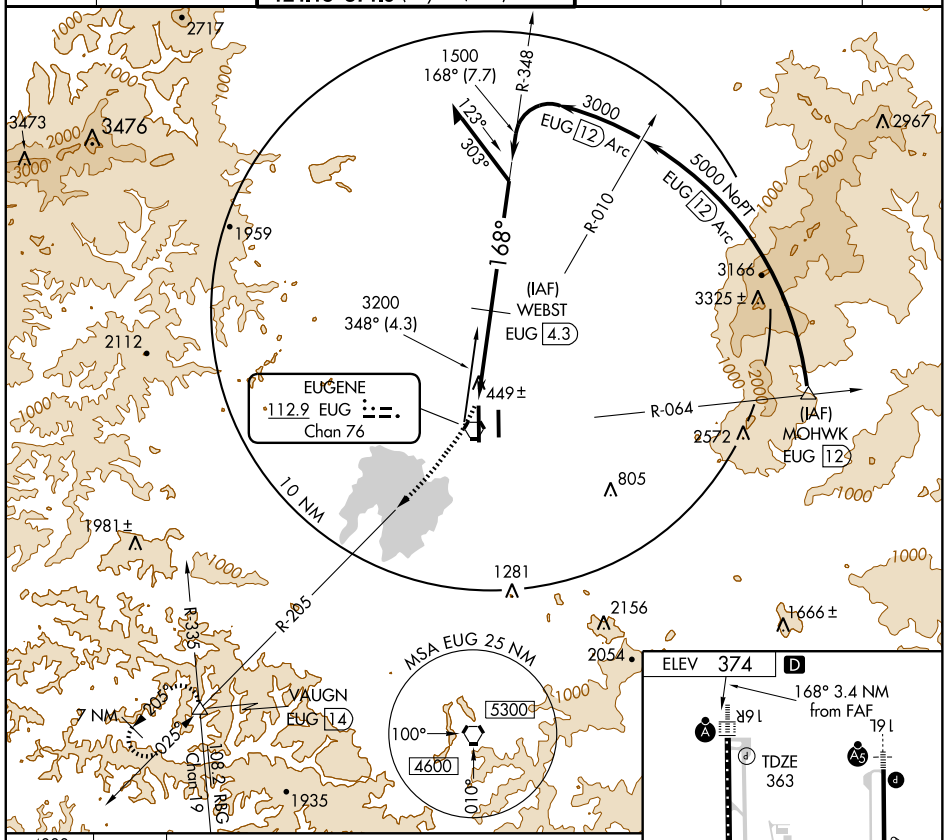
EUGENE/MAHLON SWEET FIELD (EUG)

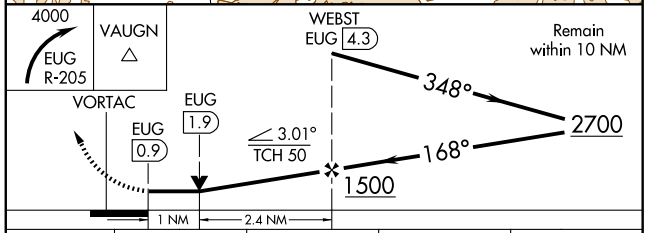
For inoperative MALSR, increase S-16R Cat D visibility to RVR 6000.

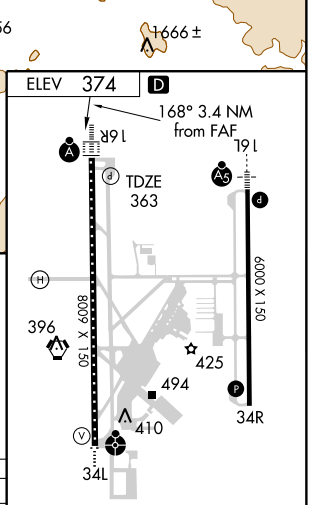
ALSF-2

MISSED APPROACH: Climbing right turn to 4000 via EUG R-205 to VAUGN/14 DME and hold.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
S-16R	720/24 357 (400-½)			720/50 357 (400-1)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

TDZ/CL Rwy 16R
REIL Rwy 34R L
HIRL Rwys 16L-34R and Rwy 16R-34L

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC EUG 112.9 Chan 76	APP CRS 332°	Rwy ldg 8009 TDZE 367 Apt Elev 374

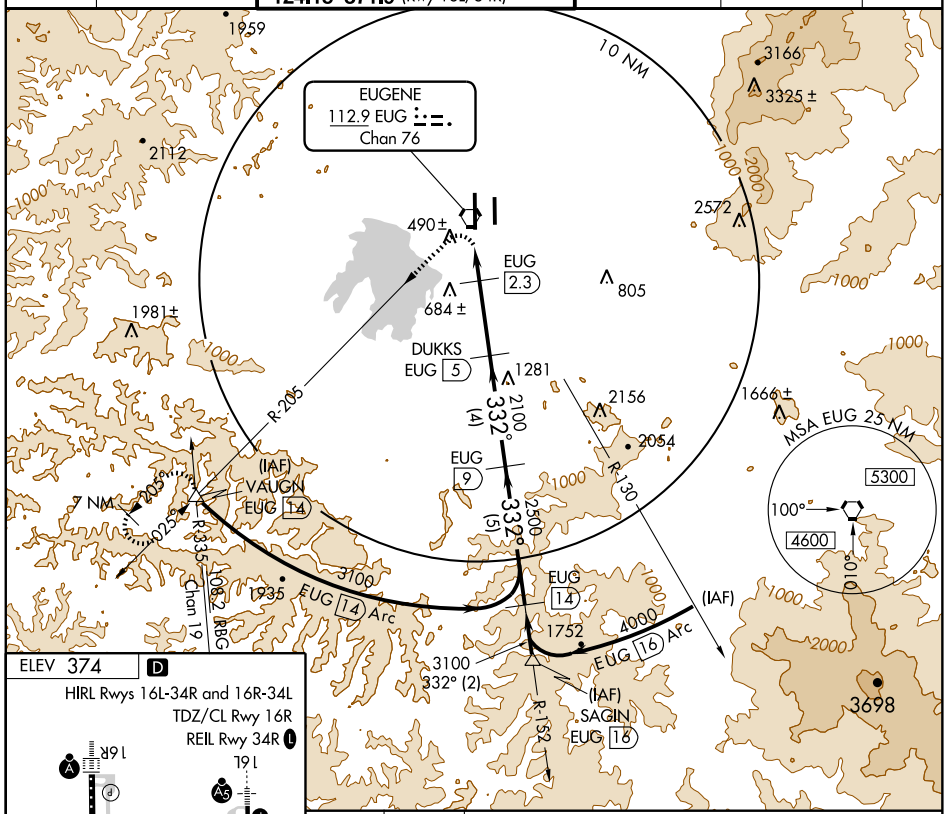
VOR/DME or TACAN RWY 34L

EUGENE/MAHLON SWEET FIELD (EUG)

ODALS

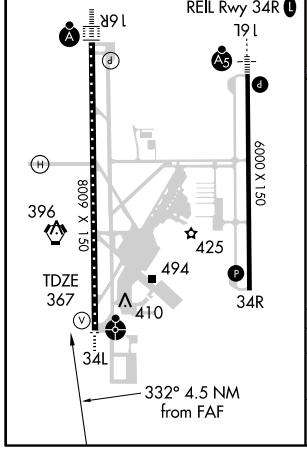
MISSED APPROACH: Climbing left turn to 4000 via EUG R-205 to VAUGN/14 DME and hold.

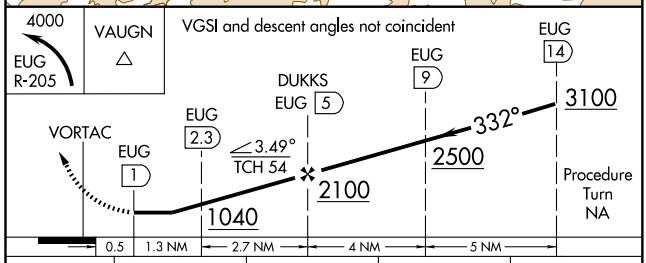
ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) Ⓛ 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95



ELEV 374 D

HIRL Rwys 16L-34R and 16R-34L
TDZ/CL Rwy 16R
REIL Rwy 34R Ⓛ





CATEGORY	A	B	C	D
S-34L	760/40 393 (400-¾)			760/60 393 (400-1¼)
CIRCLING	800-1 426 (500-1)	840-1 466 (500-1)	840-1½ 466 (500-1½)	940-2 566 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

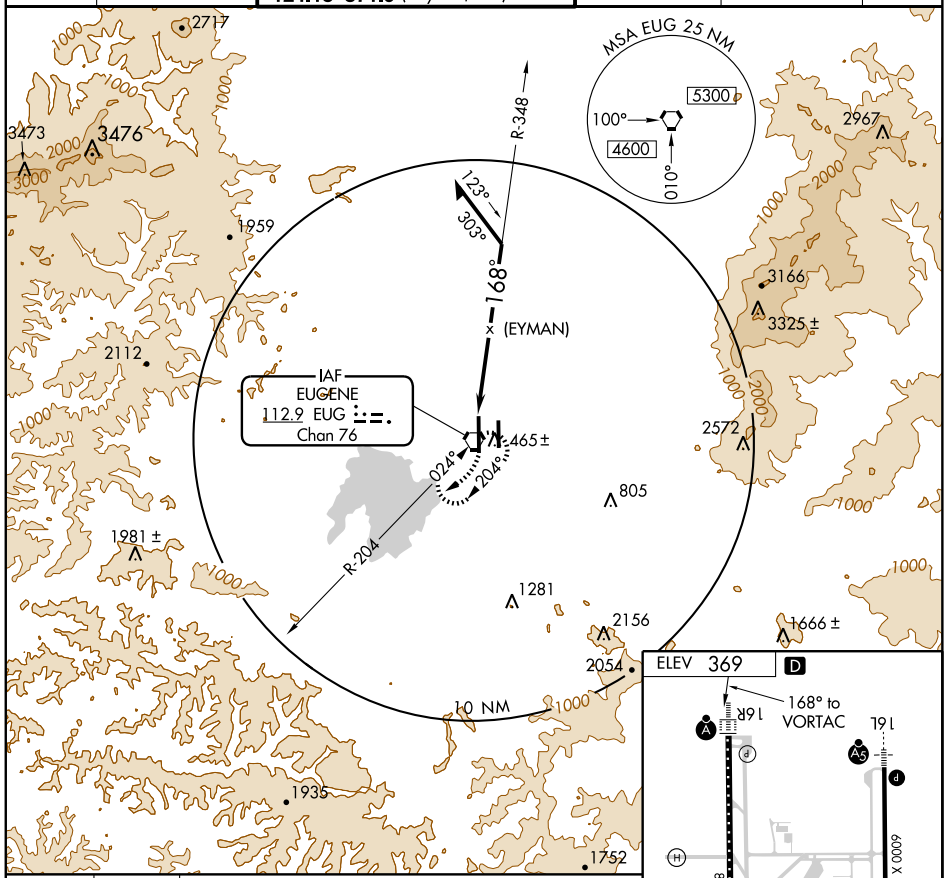
VORTAC EUG	APP CRS	Rwy ldg	N/A
112.9	168°	TDZE	N/A
Chan 76		Apt Elev	369

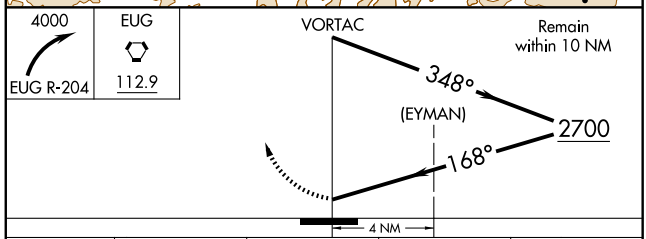
VOR or GPS-A

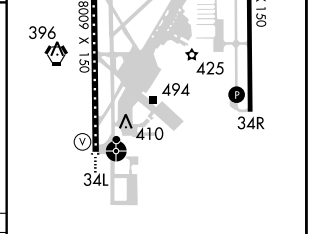
EUGENE/MAHLON SWEET FIELD (EUG)

MISSED APPROACH: Climbing right turn to 4000 via EUG R-204, then direct EUG VORTAC and hold.

ATIS	CASCADE APP CON	EUGENE TOWER ★	GND CON	CLNC DEL	UNICOM
125.225	119.6 348.7	118.9 (CTAF) L 371.9 (Rwy 16R/34L) 124.15 371.9 (Rwy 16L/34R)	121.7 269.5	121.7 269.5	122.95







CATEGORY	A	B	C	D
CIRCLING	1200-1 831 (900-1)	1200-1¼ 831 (900-1¼)	1200-2½ 831 (900-2½)	1200-2¾ 831 (900-2¾)

TDZ/CL Rwy 16R
REIL Rwy 34R L
HIRL Rwys 16L-34R and Rwy 16R-34L

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	N/A
134°	TDZE	N/A
	Apt Elev	1126

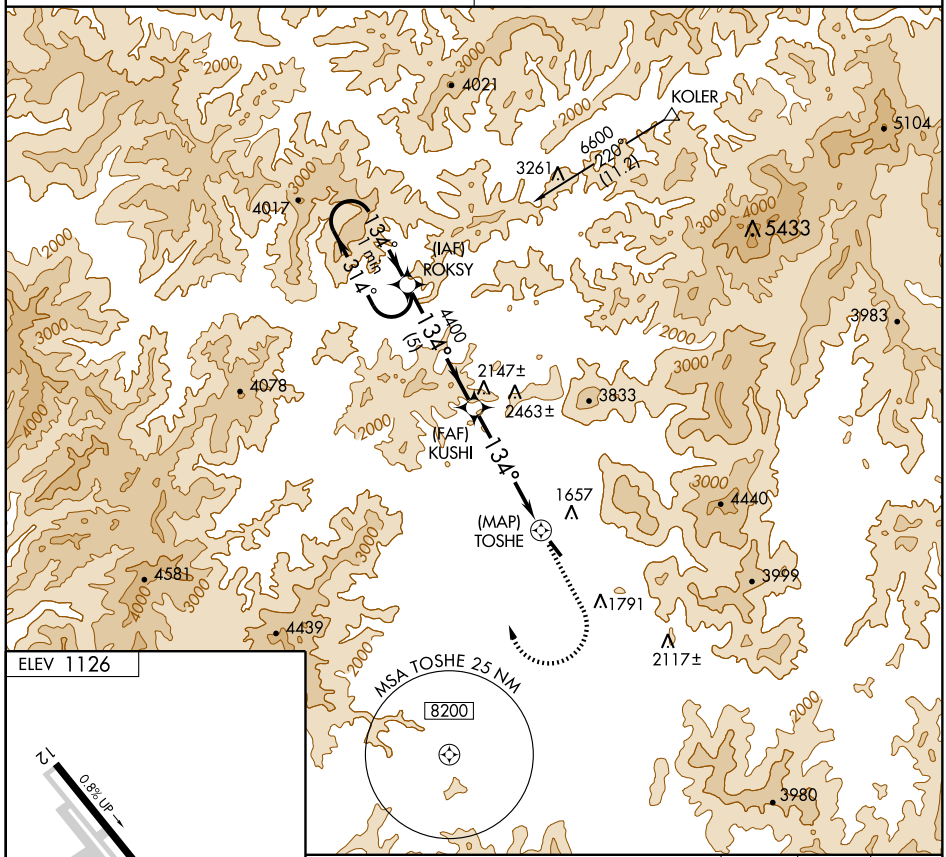
GPS-A
GRANTS PASS (3S8)

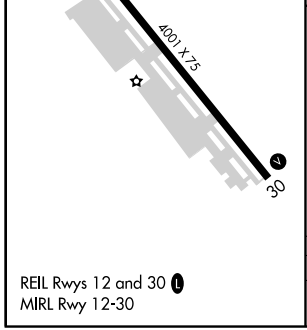
Obtain local altimeter on CTAF; when not received procedure NA.
Circling NA northeast of Rwy 12-30.

MISSED APPROACH: Climb to 4000, then climbing right turn to 5200 direct ROKSY WP and hold.

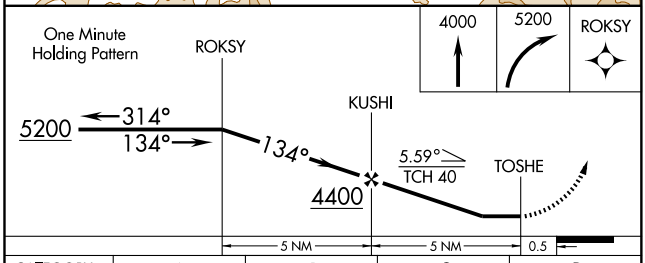
CASCADE APP CON ★
124.3 379.9

UNICOM
122.8 (CTAF) L





REIL Rwys 12 and 30 L
MIRL Rwy 12-30



CATEGORY	A	B	C	D
CIRCLING	2600-1¼ 1474 (1500-1¼)	2600-1½ 1474 (1500-1½)	NA	

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	N/A
280°	TDZE	N/A
	Apt Elev	644

RNAV(GPS)-B
HERMISTON MUNI (HRI)

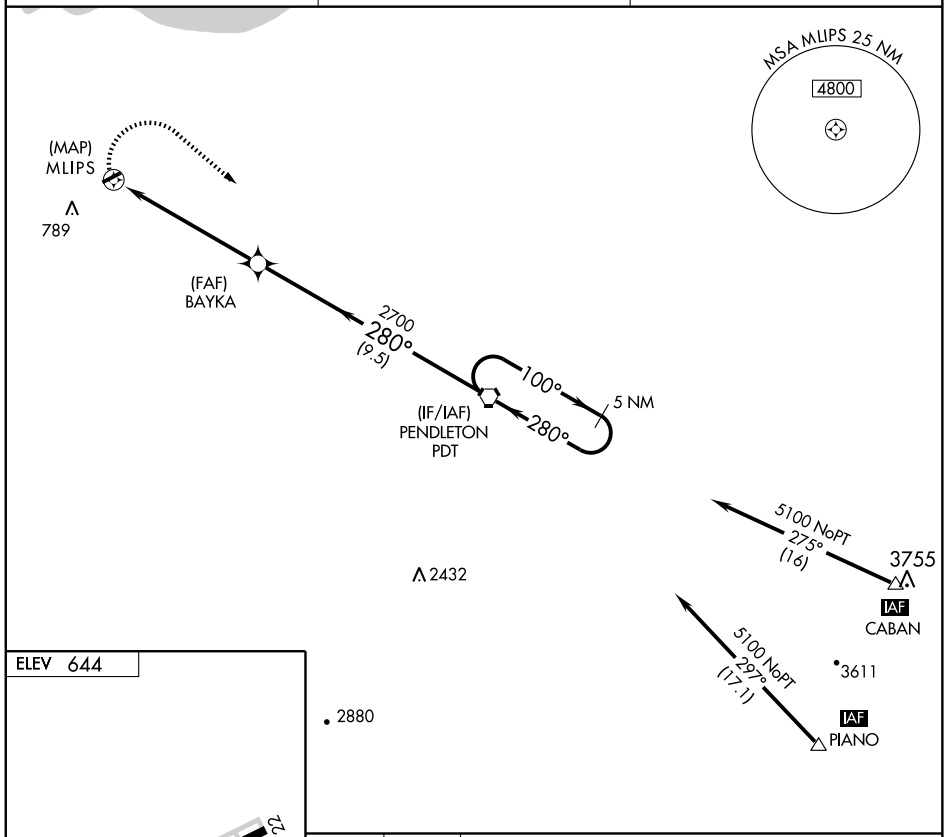
T NA

GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

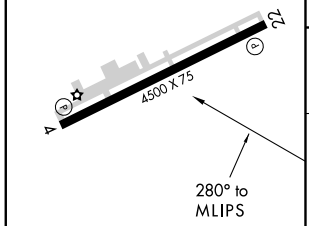
IAF ARM APPROACH MODE PRIOR TO IAF.

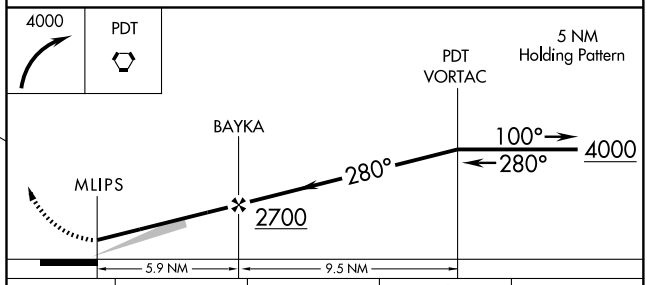
MISSED APPROACH: Climbing right turn to 4000 direct PDT VORTAC and hold.

ASOS	CHINOOK APP CON ★	UNICOM
135.225	133.15 379.15	122.8 (CTAF) L



ELEV 644





REIL Rwy 22 L
MIRL Rwy 4-22 L

CATEGORY	A	B	C	D
CIRCLING	1180-1 536 (600-1)		1180-1½ 536 (600-1½)	1200-2 556 (600-2)

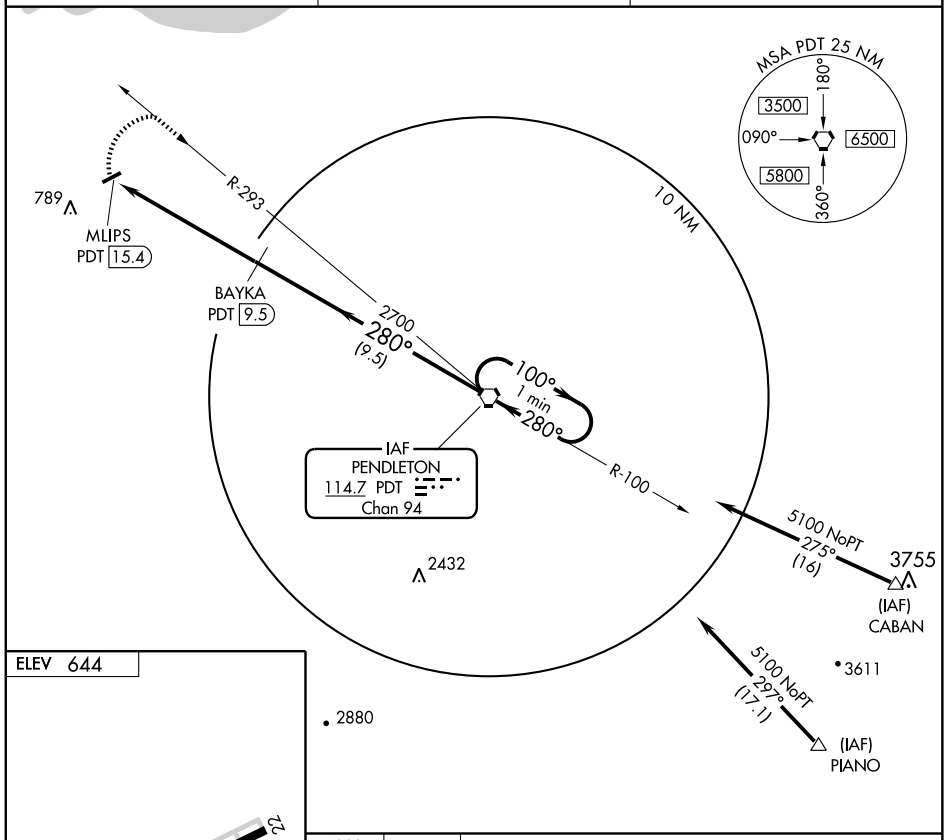
NW-1. 03 JUN 2010 to 01 JUL 2010

VORTAC PDT 114.7 Chan 94	APP CRS 280°	Rwy ldg N/A TDZE N/A Apt Elev 644

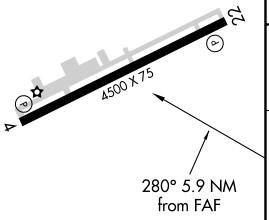
VOR/DME-A
HERMISTON MUNI (HRI)

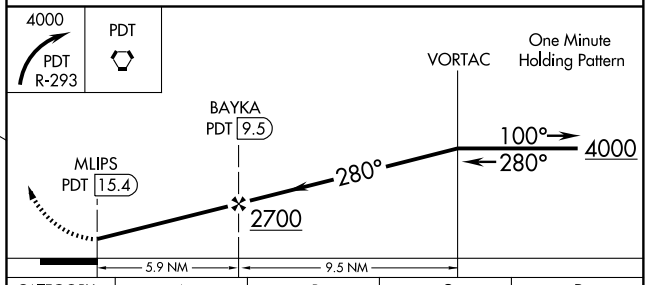
MISSED APPROACH: Climbing right turn to 4000 via PDT R-293 to PDT VORTAC and hold.

ASOS	CHINOOK APP CON ★	UNICOM
135.225	133.15 379.15	122.8 (CTAF) L



ELEV 644





REIL Rwy 22 L
MIRL Rwy 4-22 L

CATEGORY	A	B	C	D
CIRCLING	1180-1 536 (600-1)		1180-1½ 536 (600-1½)	1200-2 556 (600-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	4471
083°	TDZE	3669
	Apt Elev	3703

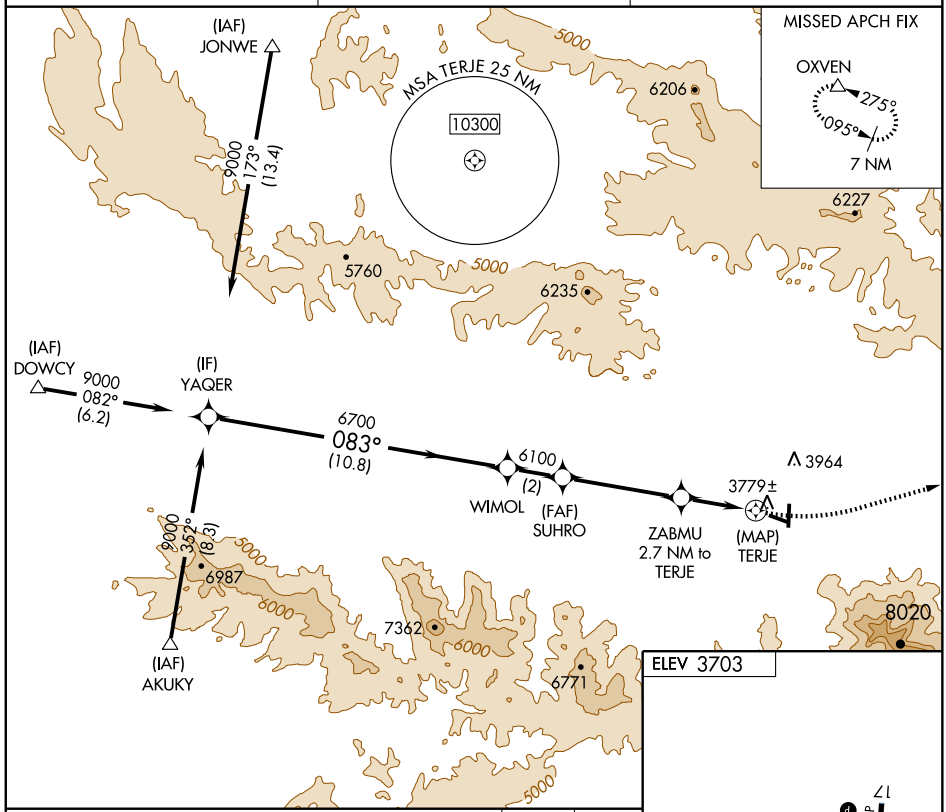
RNAV (GPS) Y RWY 9

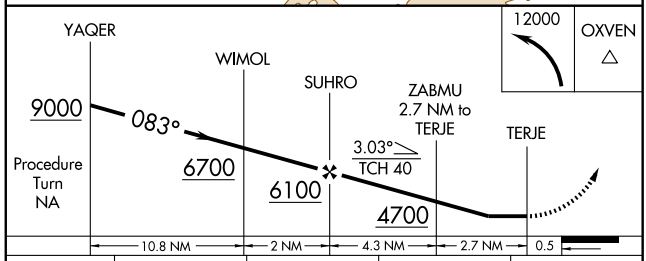
JOHN DAY / GRANT COUNTY RGNL/OGILVIE FIELD (GCD)

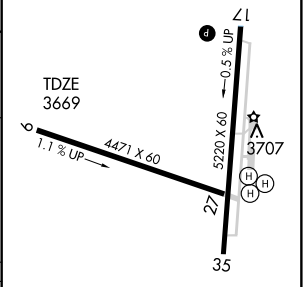
When local altimeter setting not received, procedure NA.
Circling NA south of Rwy 9-27. DME/DME RNP-0.3 NA.
Visbility reduction by helicopters NA.

MISSED APPROACH: Climbing left turn to 12000 direct OXVEN and hold, continue climb-in-hold to 12000.

AWOS-3	SEATTLE CENTER	UNICOM
118.375	128.15 257.75	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	4280-1 611 (600-1)		4280-1¾ 611 (600-1¾)	NA
CIRCLING	4280-1 577 (600-1)	4520-1¼ 817 (900-1¼)	4520-2½ 817 (900-2½)	NA

REIL Rwy 17 L
MIRL Rwy 17-35 L
LIRL Rwy 9-27 L

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 73010 W09A	APP CRS 091°	Rwy ldg 4471 TDZE 3669 Apt Elev 3703

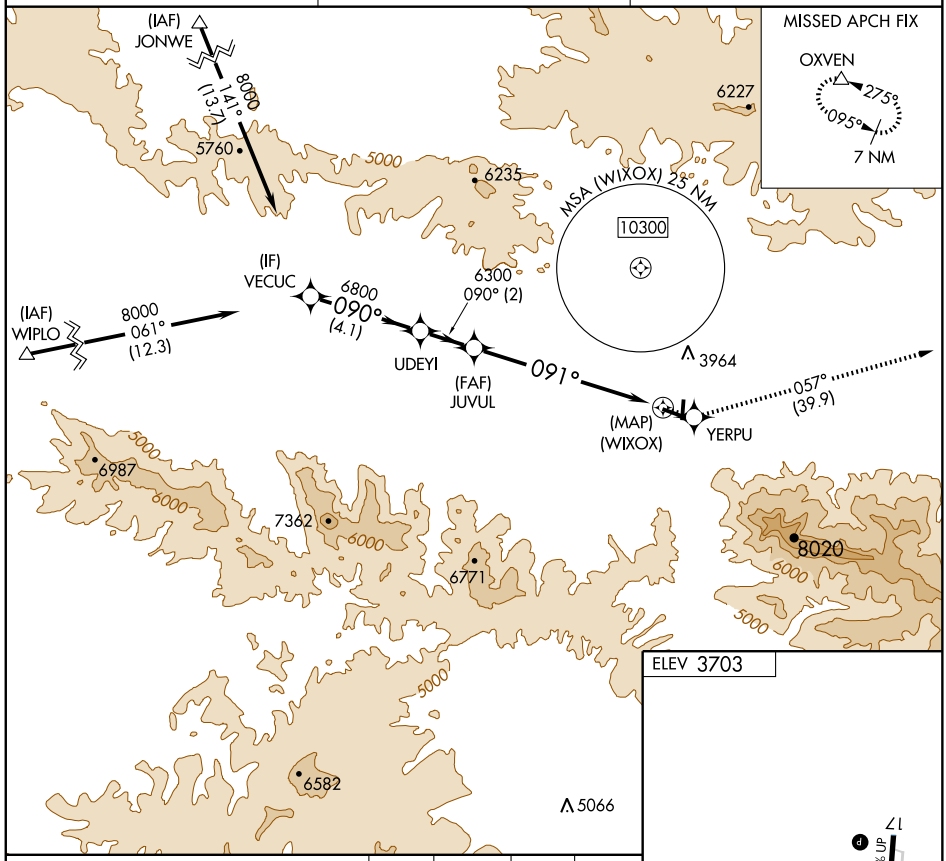
RNAV (GPS) Z RWY 9

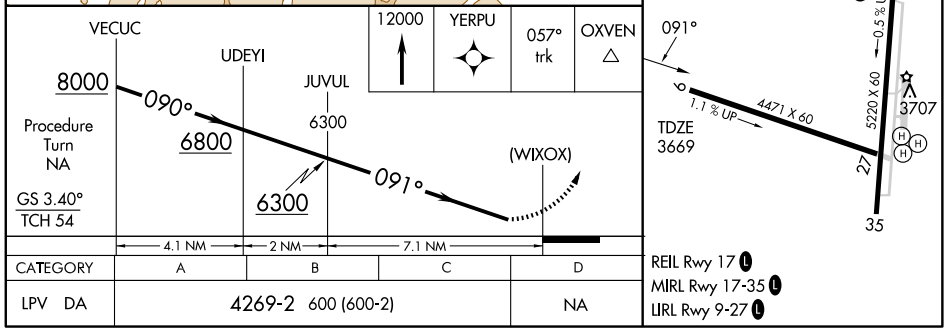
JOHN DAY/ GRANT COUNTY RGNL/OGILVIE FIELD (GCD)

When local altimeter setting not received, procedure NA.
DME/DME RNP-0.3 NA.
Visbility reduction by helicopters NA.

MISSED APPROACH: Climb to 12000 direct YERPU then via 057° track to OXVEN and hold, continue climb-in-hold to 12000.

AWOS-3	SEATTLE CENTER	UNICOM
118.375	128.15 257.75	122.8 (CTAF) L





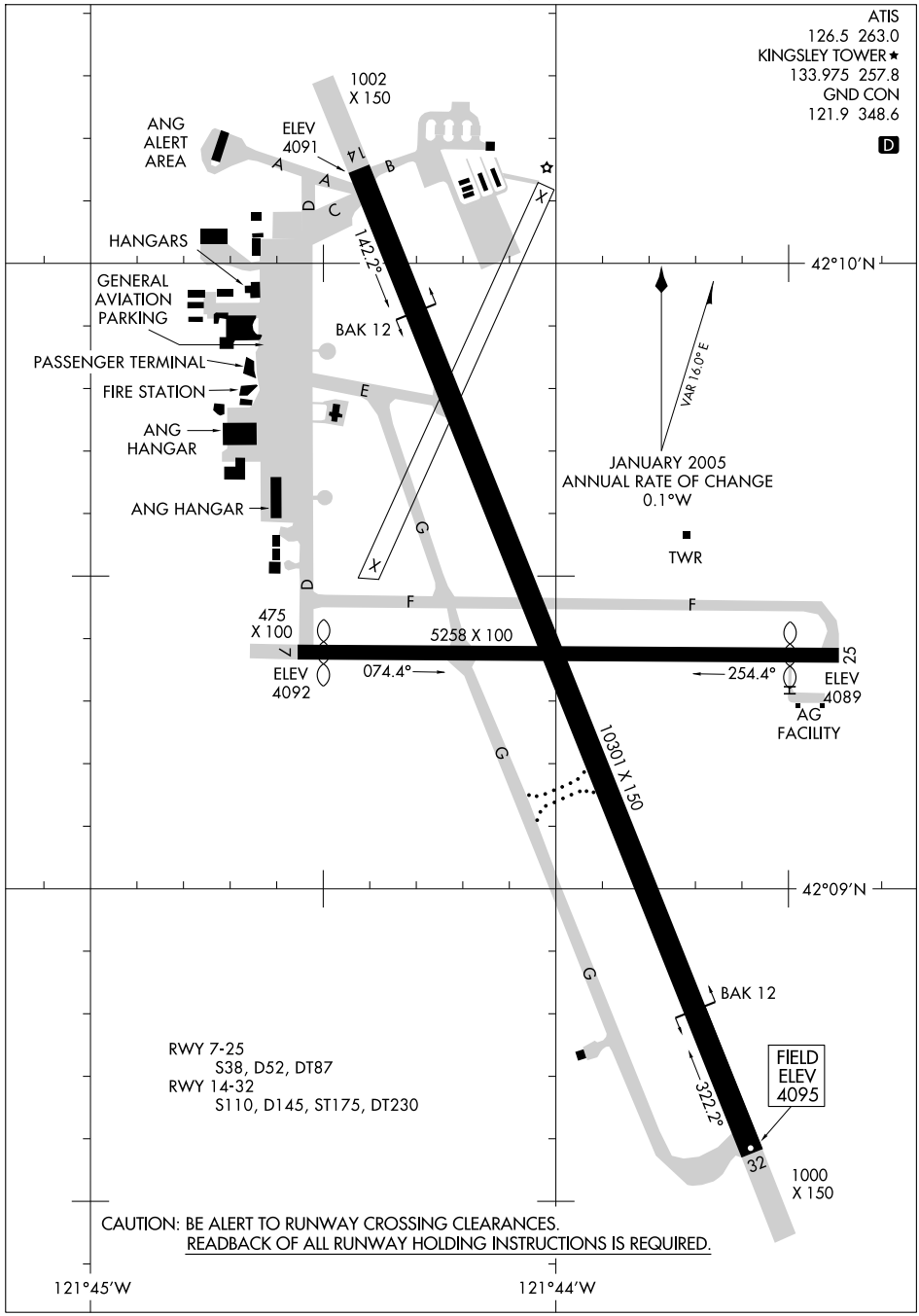
CATEGORY	A	B	C	D
LPV DA	4269-2 600 (600-2)			NA

NW-1, 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-473 (FAA)

KLAMATH FALLS (LMT)
KLAMATH FALLS, OREGON



HI-ILS/DME 2 RWY 32

LOC I-LMT	APCH CRS	Rwy ldg / TDZE / Arpt Elev
109.5	321°	10,301 / 4092 / 4095

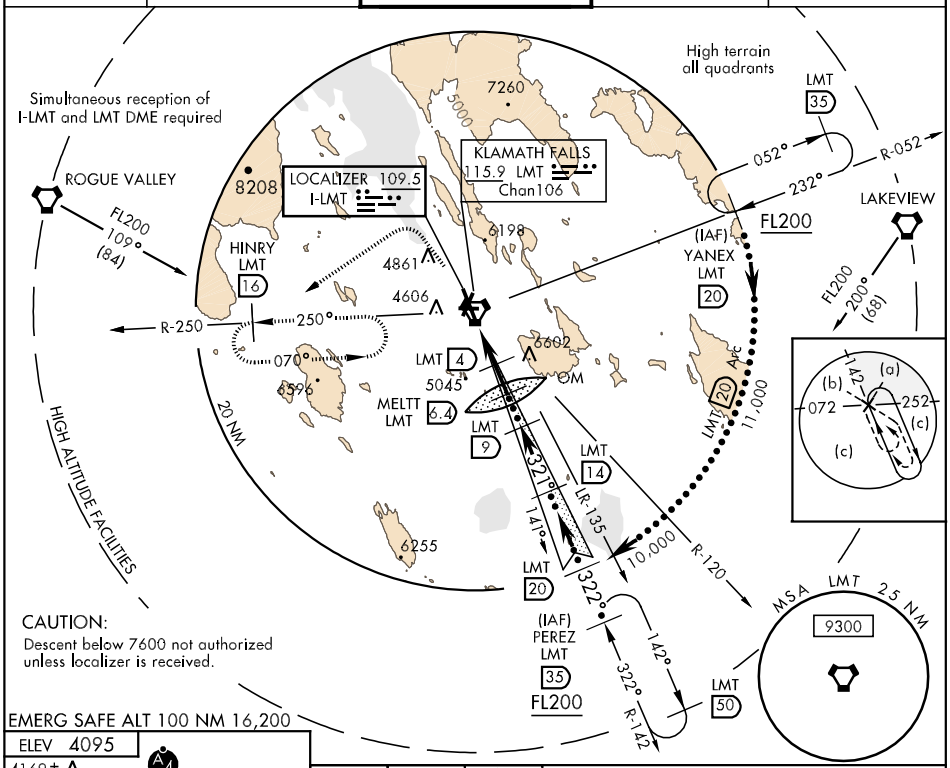
JAL-473 [USAF] KLAMATH FALLS (KINGSLEY FIELD) (KLMT)

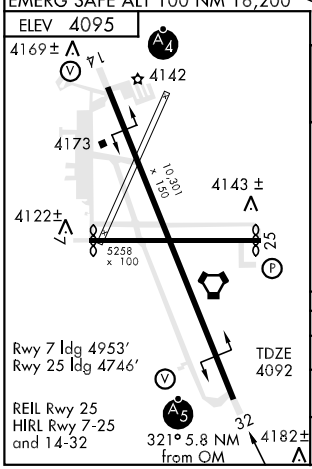
* Category E circling NE of Rwy 14-32 not authorized.

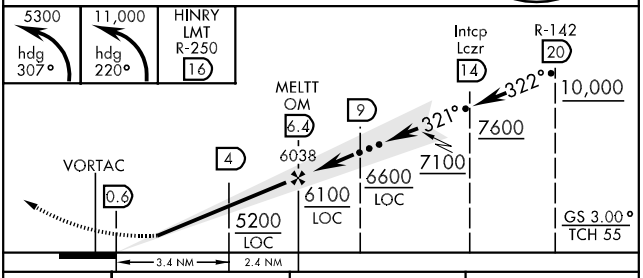
MALSR

MISSED APPROACH: Climb to 5300 heading 307° then climbing left turn to 11,000 via heading 220° to intercept LMT VORTAC R-250 to HINRY/16 DME and hold.

ATIS ★	KINGSLEY APP CON	KINGSLEY TOWER ★	GND CON	ASOS
126.5 263.0	123.675 270.8	133.975 CTAF 257.8	121.9 348.6	







CATEGORY	C	D	E
S-ILS 32	4292/24 200		(200-½)
S-LOC 32	4500/40 408 (500-¾)		4500/50 408 (500-1)
CIRCLING *	4980-2¾ 885 (900-2¾)	5000-3 905 (1000-3)	5600-3 1505 (1600-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

HI-TACAN RWY 14

VORTAC LMT	APCH CRS	Rwy ldg 10,301
115.9	134°	TDZE 4088
Chan 106		Arpt Elev 4095

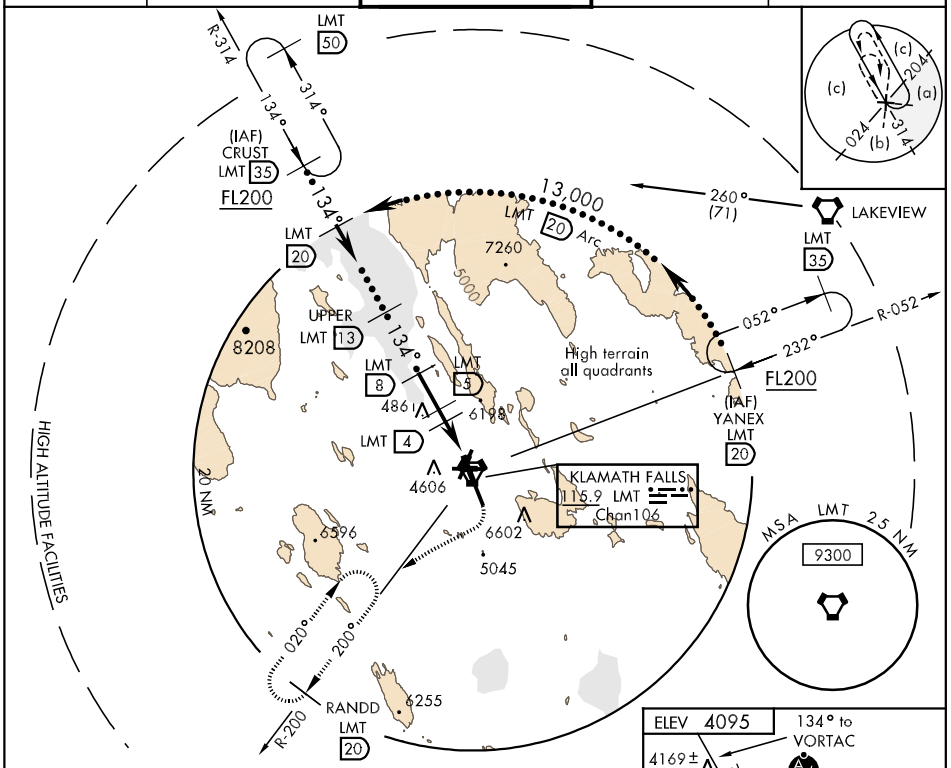
JAL-473 [USAF] KLAMATH FALLS (KINGSLEY FIELD) (KLMT)

* Category E circling NE of Rwy 14-32 not authorized.

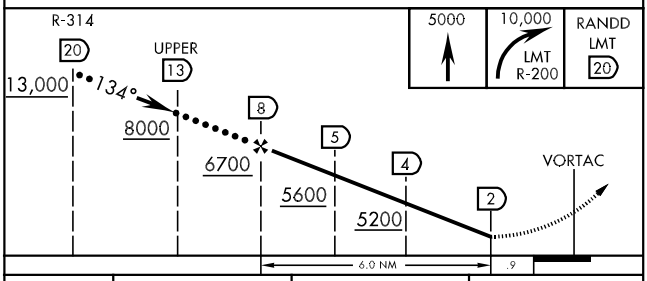
MALSF

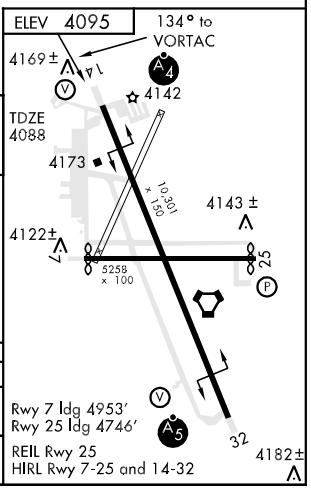
MISSED APPROACH: Climb straight ahead to 5000 then climbing right turn to 10,000 via LMT VORTAC R-200 to RANDD and hold.

ATIS ★	KINGSLEY APP CON	KINGSLEY TOWER ★	GND CON	ASOS
126.5 263.0	123.675 270.8	133.975 CTAF 257.8	121.9 348.6	



EMERG SAFE ALT 100 NM 16,200





CATEGORY	C	D	E
S-14	4680-1½ 592 (600-1½)	4680-1¾ 592 (600-1¾)	
CIRCLING *	4980-2¾ 885 (900-2¾)	5000-3 905 (1000-3)	5500-3 1405 (1500-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

HI-TACAN RWY 32

VORTAC LMT 115.9 Chan 106	APCH CRS 328°	Rwy ldg 10,301 TDZE 4095 Arpt Elev 4095

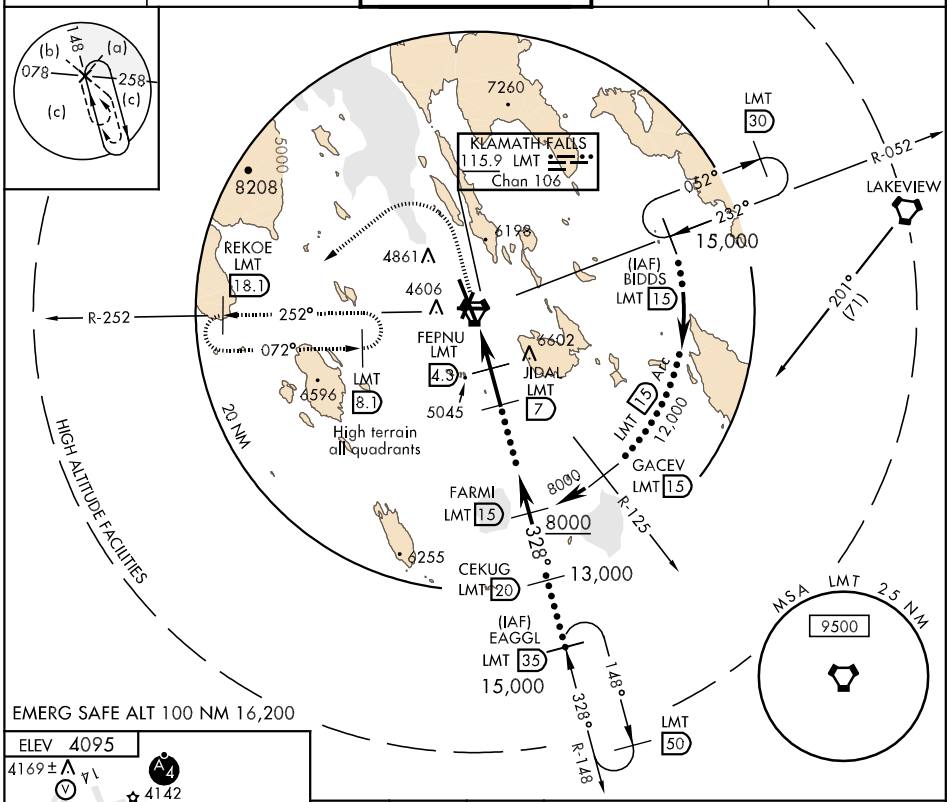
JAL-473 [USAF] KLAMATH FALLS (KINGSLEY FIELD) (KLMT)

* When ALS inop, increase CAT CDE vis ¼ mile.
** Category E circling NE of Rwy 14-32 not authorized.

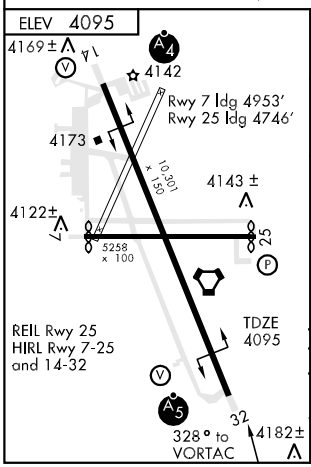
MALSR

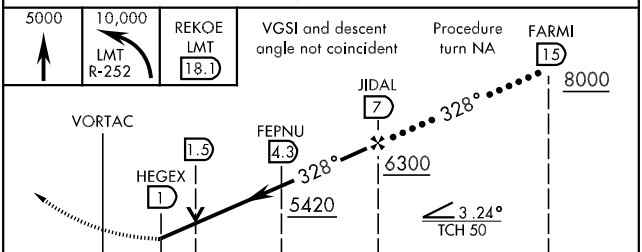
MISSED APPROACH: Climb to 5000 then climbing left turn to 10,000 to intercept LMT VORTAC R-252 to REKOE/LMT 18.1 DME and hold, continue climb in hold to 10,000.

ATIS ★	KINGSLEY APP CON	KINGSLEY TOWER ★	GND CON	ASOS
126.5 263.0	123.675 270.8	133.975 CTAF 257.8	121.9 348.6	



EMERG SAFE ALT 100 NM 16,200





CATEGORY	C	D	E
S-32*	4440/40 345 (400-¾)	4440/50 345 (400-1)	
CIRCLING**	4980-2¾ 885 (900-2¾)	5000-3 905 (1000-3)	5600-3 1505 (1600-3)

KLAMATH FALLS, OREGON

AL-473 (FAA)

ILS or LOC RWY 32
KLAMATH FALLS (LMT)

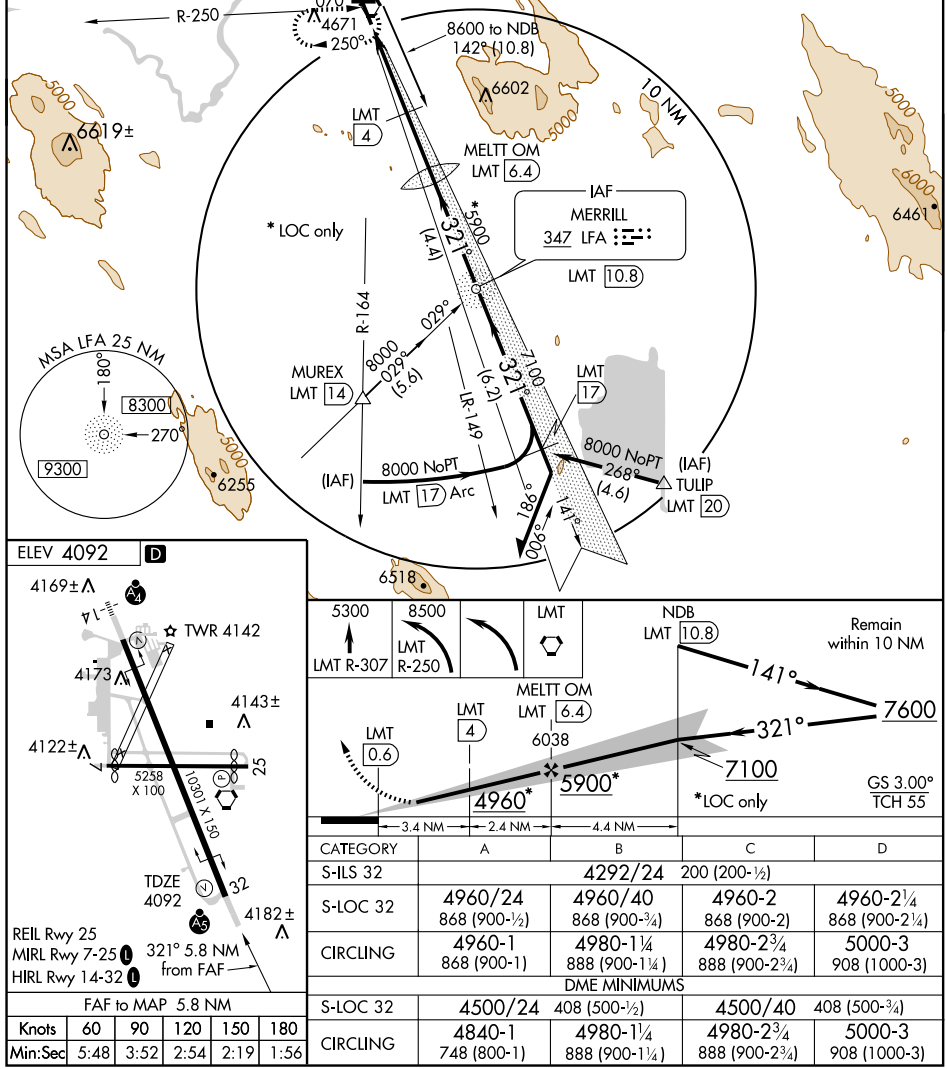
LOC I-LMT	APP CRS	Rwy ldg 10301
109.5	321°	TDZE 4092
		Apt Elev 4092

ASR/PAR

MALSR

MISSED APPROACH: Climb to 5300 via LMT R-307 then climbing left turn westbound to 8500 via LMT R-250, then left turn direct LMT VORTAC and hold.

ATIS	KINGSLEY APP CON ★	KINGSLEY TOWER ★	GND CON	UNICOM
126.5 263.0	123.675 270.8	133.975 (CTAF) L 257.8	121.9 348.6	122.95



CATEGORY	A	B	C	D
S-ILS 32	4292/24 200 (200-½)			
S-LOC 32	4960/24 868 (900-½)	4960/40 868 (900-¾)	4960-2 868 (900-2)	4960-2¼ 868 (900-2¼)
CIRCLING	4960-1 868 (900-1)	4980-1¼ 888 (900-1¼)	4980-2¾ 888 (900-2¾)	5000-3 908 (1000-3)
DME MINIMUMS				
S-LOC 32	4500/24 408 (500-½)		4500/40 408 (500-¾)	
CIRCLING	4840-1 748 (800-1)	4980-1¼ 888 (900-1¼)	4980-2¾ 888 (900-2¾)	5000-3 908 (1000-3)

FAF to MAP 5.8 NM

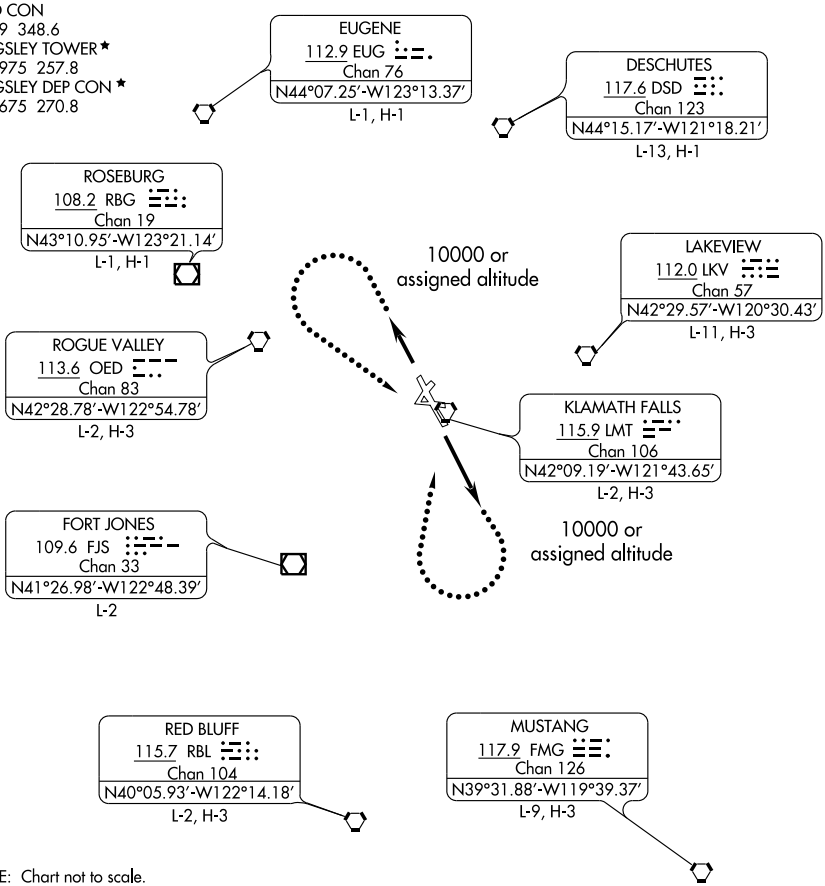
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

NW-1, 03 JUN 2010 to 01 JUL 2010

KINGSLEY THREE DEPARTURE

SL-473 (FAA)

ATIS
126.5 263.0
GND CON
121.9 348.6
KINGSLEY TOWER★
133.975 257.8
KINGSLEY DEP CON★
123.675 270.8



NOTE: Chart not to scale.

NOTE: This SID requires a minimum climb of 325′ per NM to 8500′ or 4500′ ceiling and 3 mile visibility to clear obstruction. (813 FPM at 150K,1083 FPM 200K, 1354 FPM at 250K).

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 14 and 32: Climb via runway heading until leaving 4700′. Then via radar vector headings to assigned route.

LOST COMMUNICATIONS

If not in contact with Seattle Center after reaching 10000′ or assigned altitude, if lower; continue climb to assigned altitude and:

Take-off runway 14: Climbing right turn direct LMT VORTAC, thence via (assigned route).

Take-off runway 32: Climbing left turn direct LMT VORTAC, thence via (assigned route).

WAAS CH 58001 W14A	APP CRS 141°	Rwy ldg 10301 TDZE 4091 Apt Elev 4095

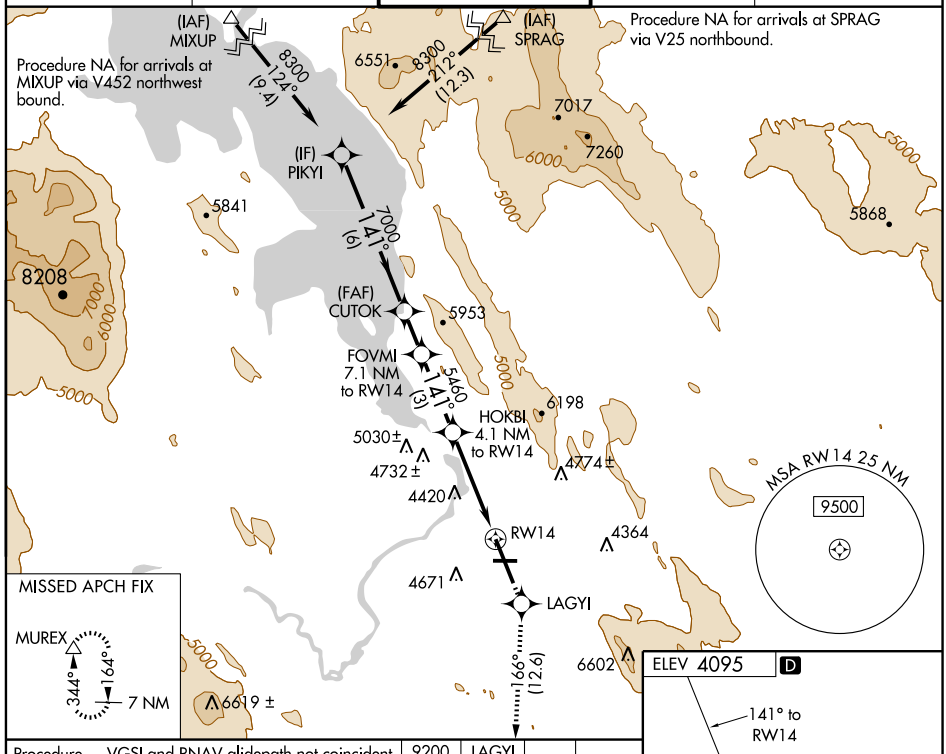
RNAV (GPS) RWY 14
KLAMATH FALLS (LMT)

T A DME/DME RNP-0.3 NA.
Inoperative table does not apply to LPV all Cats, and LNAV Cats B, C and D.
ASR/PAR Visibility reduction by helicopters NA.

MALSF

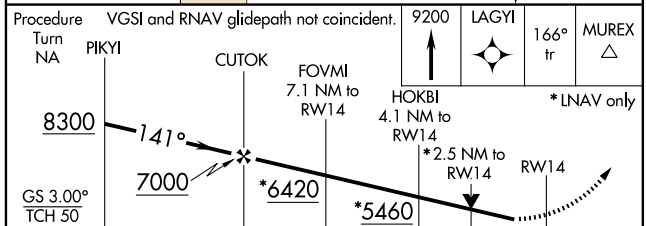
MISSED APPROACH: Climb to 9200 direct LAGYI and via 166° track to MUREX and hold, continue climb-in-hold to 9200.

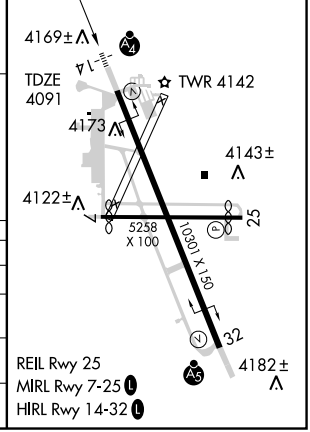
ATIS	KINGSLEY APP CON ★	KINGSLEY TOWER ★	GND CON	UNICOM
126.5 263.0	123.675 270.8	133.975 (CTAF) L 257.8	121.9 348.6	122.95



Procedure Turn NA

VGSI and RNAV glidepath not coincident.





CATEGORY	A	B	C	D
LPV DA	4635-2 544 (600-2)			
LNAV/VNAV DA	NA			
LNAV MDA	4920-¾ 829 (900-¾)	4920-1¼ 829 (900-1¼)	4920-2½ 829 (900-2½)	4920-2¾ 829 (900-2¾)
CIRCLING	4920-2 825 (900-2)	4980-2 885 (900-2)	4980-2¾ 885 (900-2¾)	5060-3 965 (1000-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC LMT 115.9 Chan 106	APP CRS 134°	Rwy ldg 10301 TDZE 4091 Apt Elev 4095

VOR/DME or TACAN RWY 14

KLAMATH FALLS (LMT)

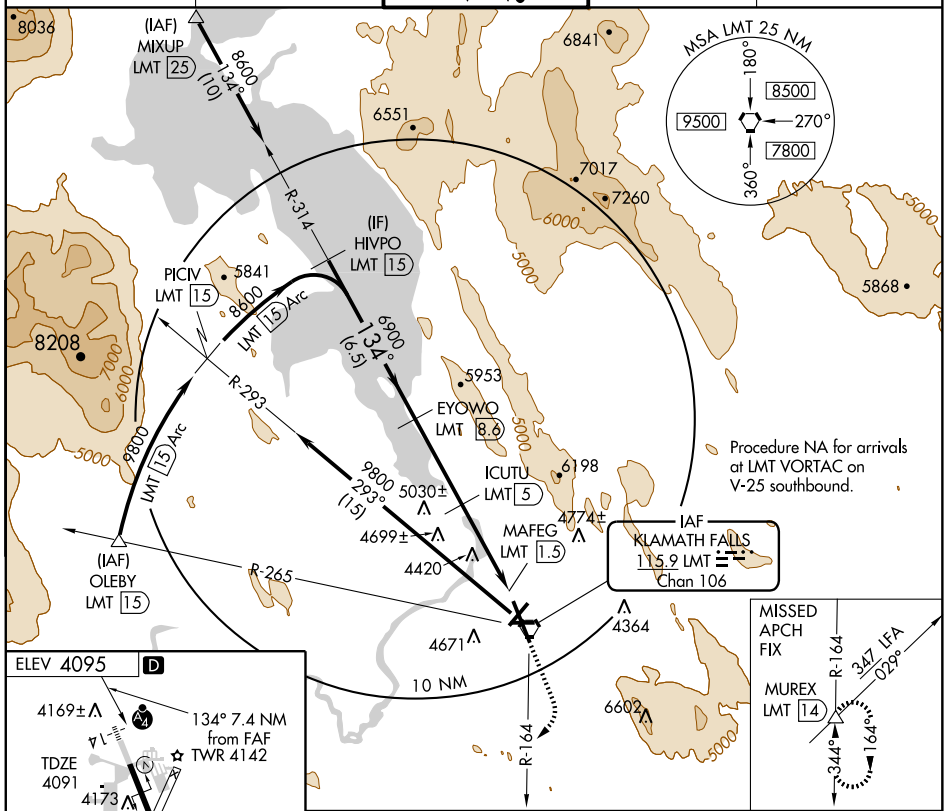
ASR/PAR

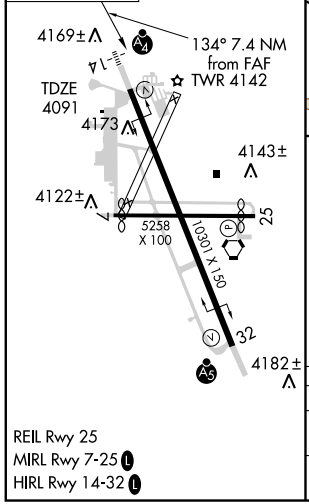
Cat E circling NA northeast of Rwy 14-32.
For inoperative MALSF increase S-14 Cat E visibility to 2¾, inoperative table does not apply to Cats B, C, and D.
Visibility reduction by helicopters NA.

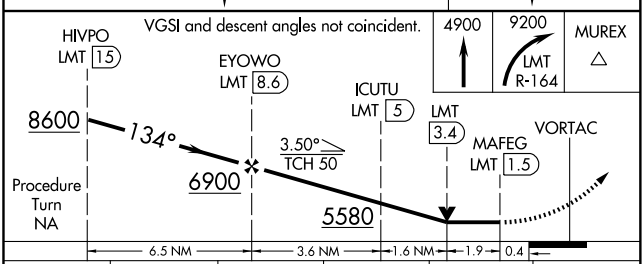
MALSF

MISSED APPROACH: Climb to 4900 then climbing right turn to 9200 via LMT R-164 to MUREX/14 DME and hold, continue climb-in-hold to 9200.

ATIS	KINGSLEY APP CON★	KINGSLEY TOWER★	GND CON	UNICOM
126.5 263.0	123.675 270.8	133.975 (CTAF) L 257.8	121.9 348.6	122.95







CATEGORY	A	B	C	D	E
S-14	4860-¾ 769 (800-¾)	4860-1¼ 769 (800-1¼)	4860-2¼ 769 (800-2¼)	4860-2½	769 (800-2½)
CIRCLING	4860-1 765 (800-1)	4980-1¼ 885 (900-1¼)	4980-2¾ 885 (900-2¾)	5060-3 965 (1000-3)	5600-3 1505 (1600-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC LMT 115.9 Chan 106	APP CRS 328°	Rwy ldg 10301 TDZE 4092 Apt Elev 4092

VOR/DME or TACAN RWY 32

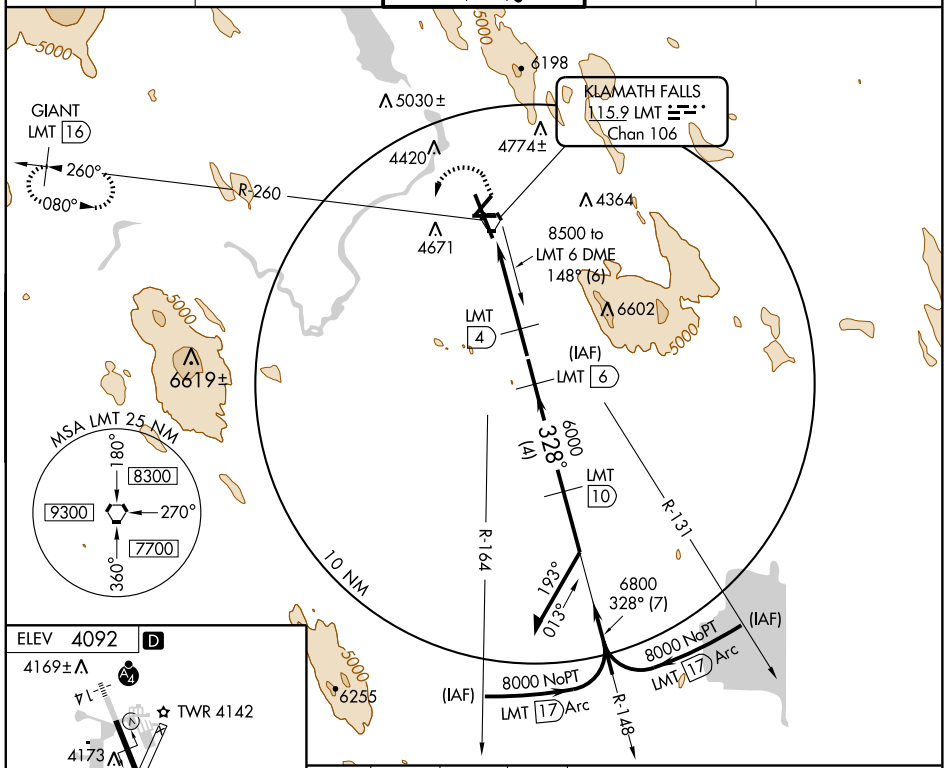
KLAMATH FALLS (LMT)

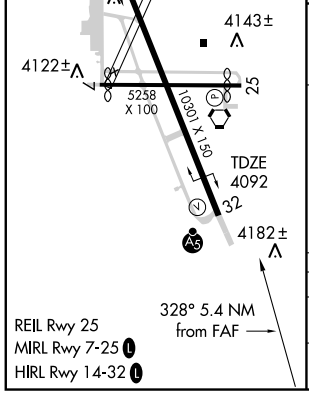
Cat. E procedure turn NA.
* Cat. E circling NA northeast of Rwy 14-32.
ASR/PAR S-32 Cat. D visibility increased to RVR 6000 for inoperative ALSF-1.

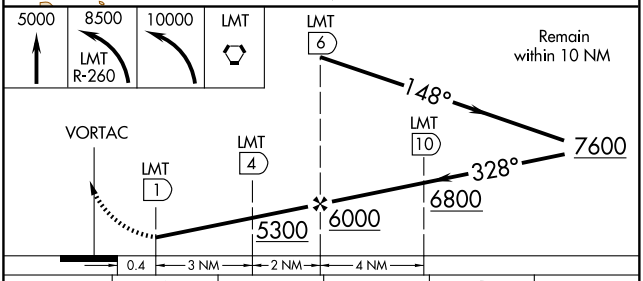
MALSR

MISSED APPROACH: Climb to 5000 then climbing left turn to 8500 via LMT R-260 then climbing left turn to 10000 direct LMT VORTAC. (TACAN aircraft continue climb on R-260 to 10000 to GIANT/16 DME and hold East, left turns, 260 inbound.)

ATIS	KINGSLEY APP CON *	KINGSLEY TOWER *	GND CON	UNICOM
126.5 263.0	123.675 270.8	133.975 (CTAF) L 257.8	121.9 348.6	122.95







CATEGORY	A	B	C	D	E
S-32	4500/24	408 (500-½)	4500/40 408 (500-¾)	4500/50	408 (500-1)
CIRCLING*	4840-1 748 (800-1)	4980-1¼ 888 (900-1¼)	4980-2¾ 888 (900-2¾)	5000-3 908 (1000-3)	5500-3 1408 (1500-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

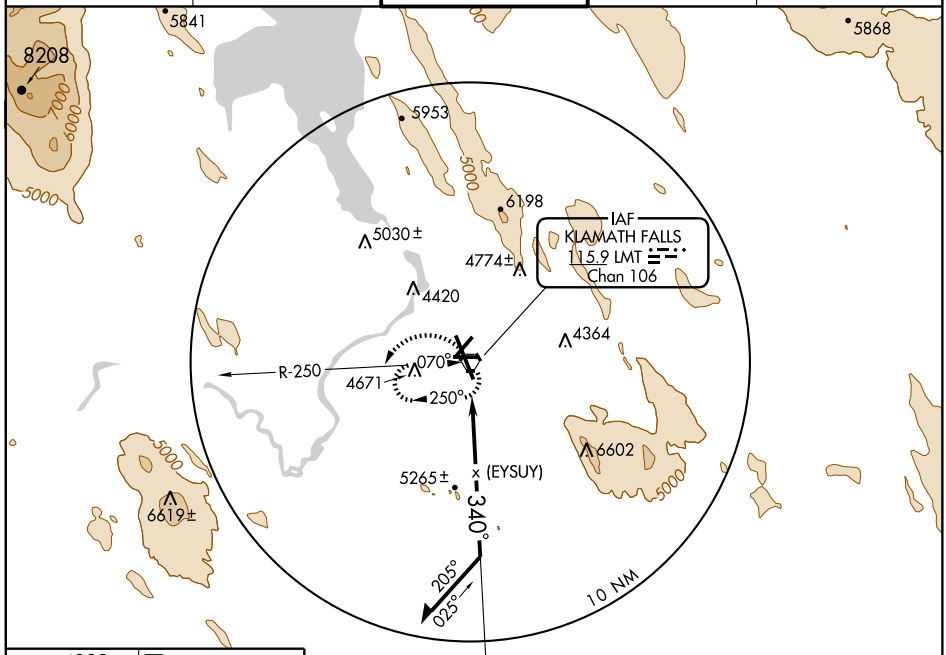
VORTAC LMT 115.9 Chan 106	APP CRS 340°	Rwy ldg N/A TDZE N/A Apt Elev 4092

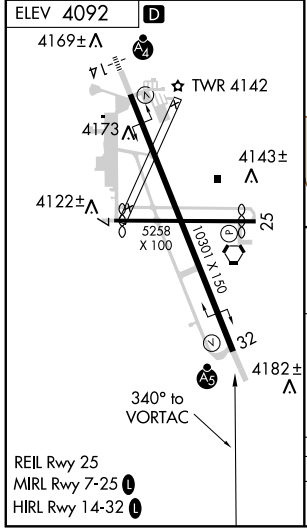
VOR or GPS-B
KLAMATH FALLS (LMT)

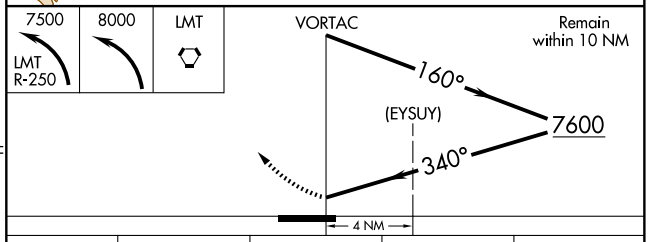
ASR/PAR

MISSED APPROACH: Climbing left turn to 7500 via LMT R-250, then climbing left turn to 8000 direct LMT VORTAC and hold.

ATIS	KINGSLEY APP CON★	KINGSLEY TOWER★	GND CON	UNICOM
126.5 263.0	123.675 270.8	133.975 (CTAF) L 257.8	121.9 348.6	122.95







CATEGORY	A	B	C	D
CIRCLING	6100-1¼ 2008 (2100-1¼)	6100-1½ 2008 (2100-1½)	6100-3 2008 (2100-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

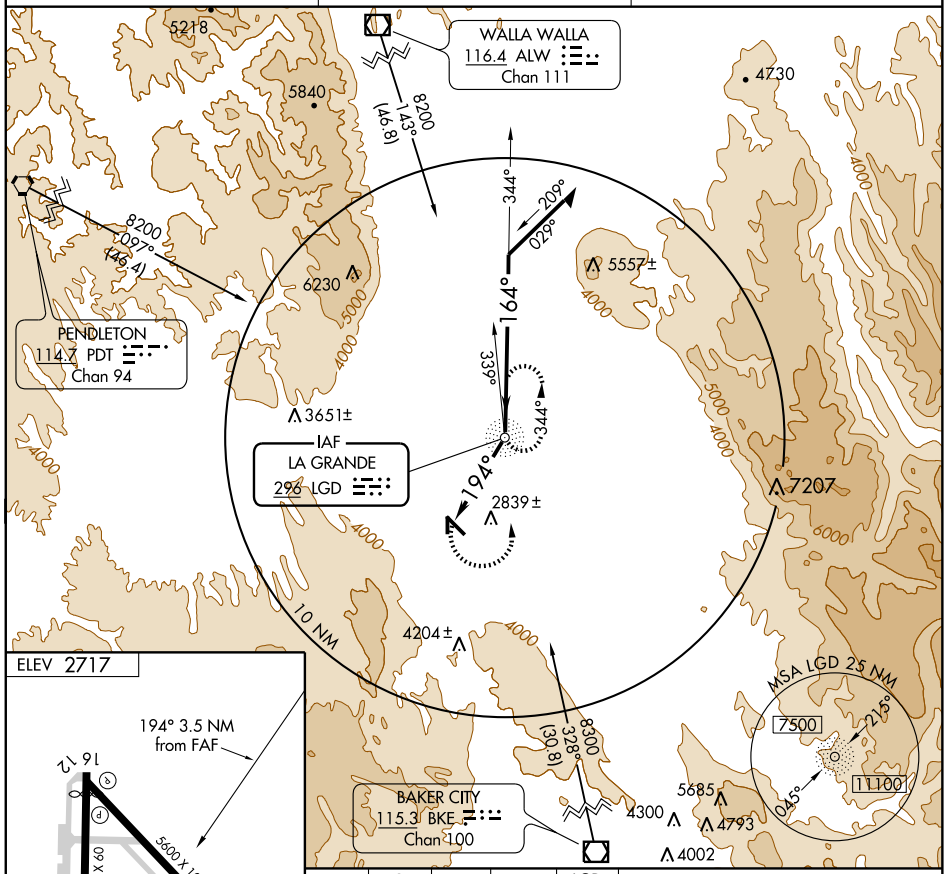
NDB LGD	APP CRS	Rwy ldg	N/A
296	194°	TDZE	N/A
		Apt Elev	2717

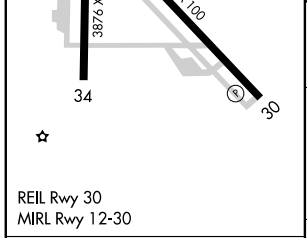
NDB-B
LA GRANDE/UNION COUNTY (LGD)

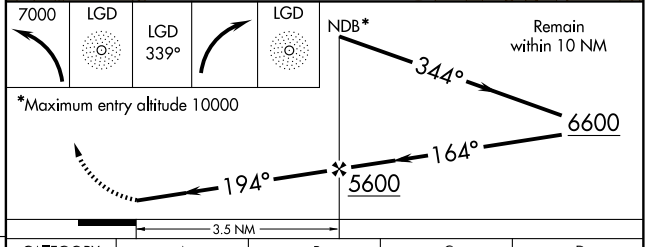
NA

MISSED APPROACH: Climbing left turn to 7000 direct LGD NDB and 339° bearing from LGD NDB, then right turn direct LGD NDB and hold.

AWOS-3	SEATTLE CENTER	UNICOM
135.075	132.6 269.35	122.8 (CTAF)







*Maximum entry altitude 10000

FAF to MAP 3.5 NM					
Knots	60	90	120	150	180
Min:Sec	3:30	2:20	1:45	1:24	1:10

CATEGORY	A	B	C	D
CIRCLING	4360-1¼ 1643 (1700-1¼)	4360-1½ 1643 (1700-1½)	4360-3 1643 (1700-3)	NA

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 66000 W16A	APP CRS 163°	Rwy ldg 3390 TDZE 2714 Apt Elev 2717

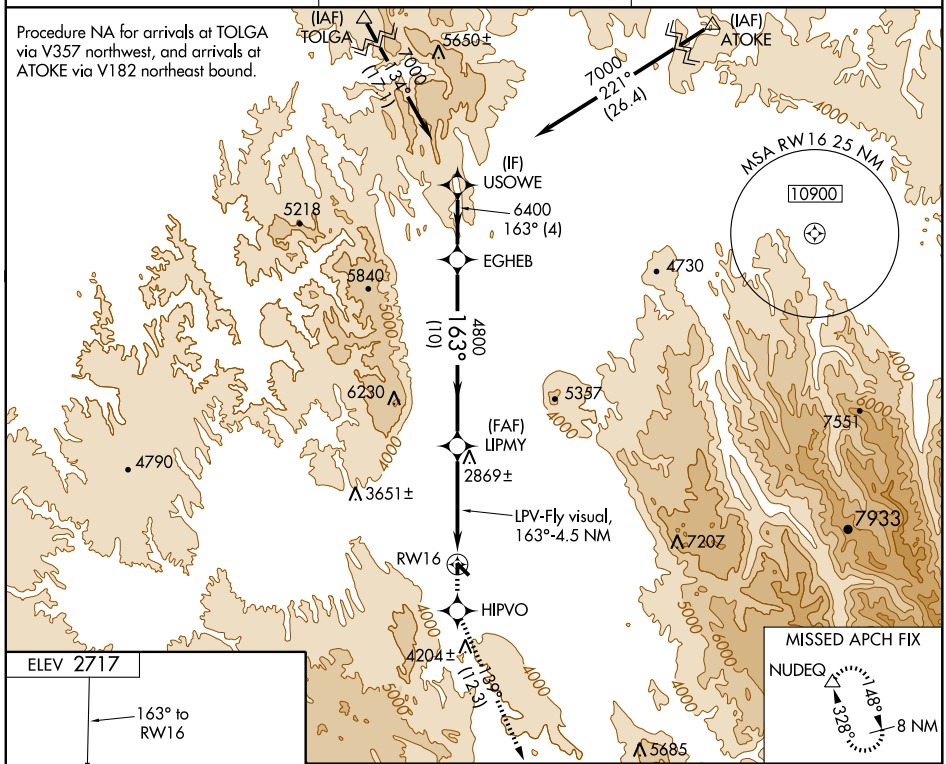
RNAV (GPS) RWY 16
LA GRANDE/UNION COUNTY (LGD)

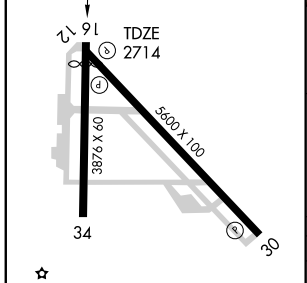
NA

DME/DME RNP-0.3 NA.
If local altimeter setting not received procedure NA.

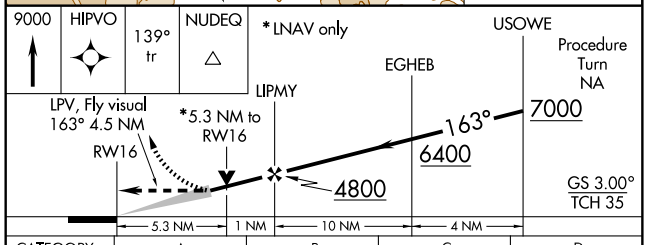
MISSED APPROACH: Climb to 9000 direct HIPVO and via 139° track to NUDEQ and hold, continue climb-in-hold to 9000.

AWOS-3	SEATTLE CENTER	UNICOM
135.075	132.6 269.35	122.8 (CTAF)





REIL Rwy 30
MIRL Rwy 12-30



CATEGORY	A	B	C	D
LPV DA	4173-2 1459 (1500-2)		4173-3 1459 (1500-3)	
LNAV/VNAV DA	NA			
LNAV MDA	4440-1¼ 1726 (1800-1¼)	4440-1½ 1726 (1800-1½)	4440-3 1726 (1800-3)	
CIRCLING	4440-6 1723 (1800-6)			

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5306
343°	TDZE	4725
	Apt Elev	4729

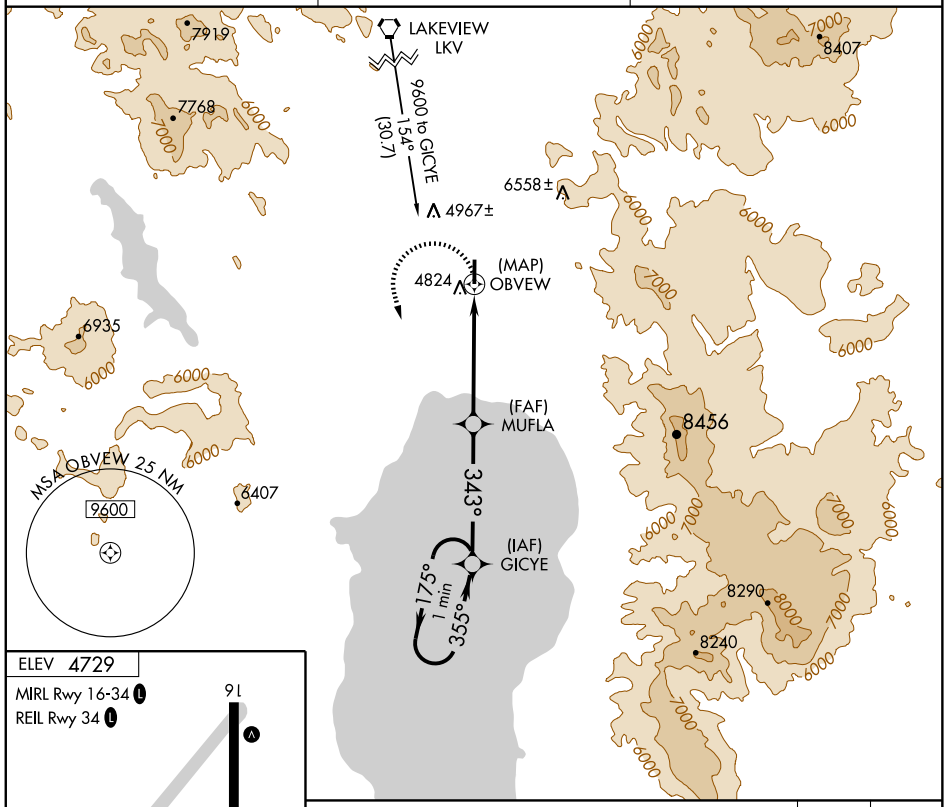
GPS RWY 34

LAKEVIEW/LAKE COUNTY (LKV)

NA

MISSED APPROACH: Climbing left turn to 8000, direct GICYE WP and hold.

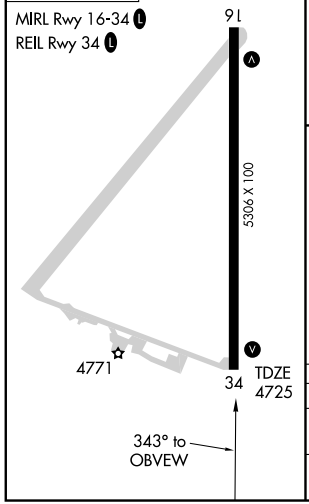
AWOS-3	SEATTLE CENTER	UNICOM
135.525	127.6 346.35	122.8 (CTAF) L

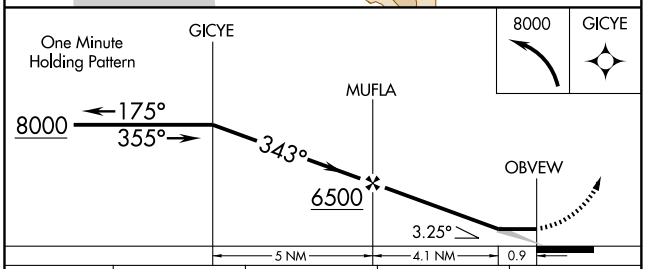


ELEV 4729

MIRL Rwy 16-34 L

REIL Rwy 34 L





CATEGORY	A	B	C	D
S-34	5080-1 355 (400-1)			5080-1¼ 355 (400-1¼)
CIRCLING	5160-1 431 (500-1)	5180-1 451 (500-1)	5180-1½ 451 (500-1½)	5280-2 551 (600-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

LAKEVIEW, OREGON

AL-5552 (FAA)

10154

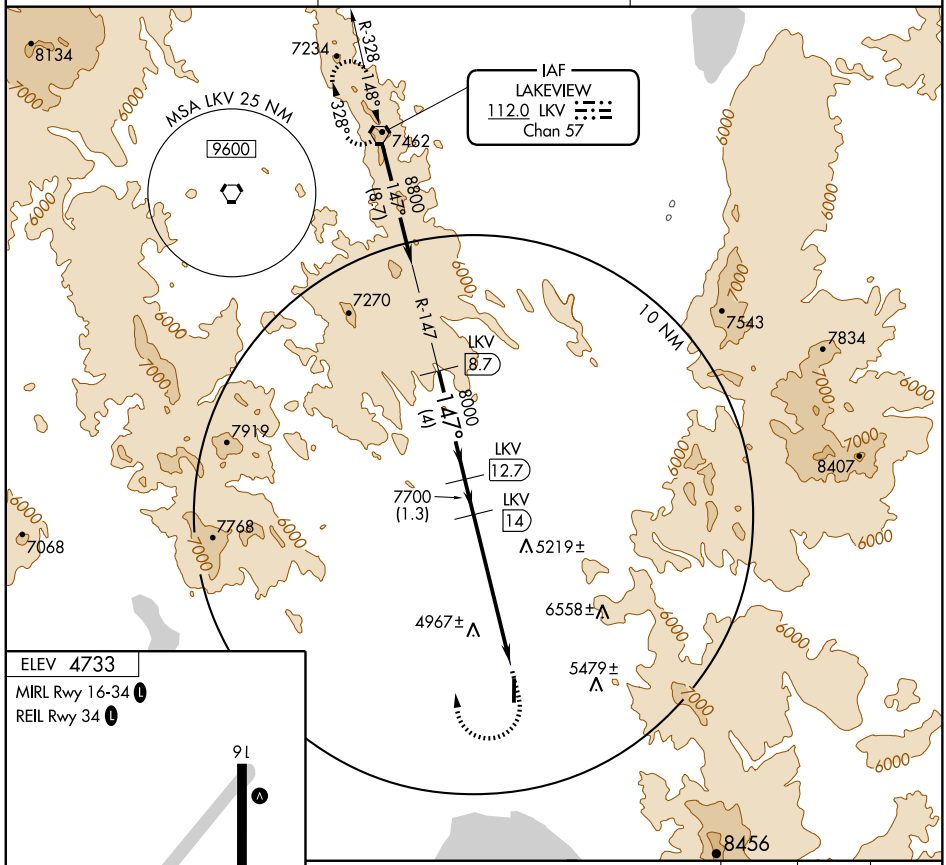
VOR/DME-A

LAKEVIEW/LAKE COUNTY (LKV)

VORTAC LKV	APP CRS	Rwy ldg	N/A
112.0	147°	TDZE	N/A
Chan 57		Apt Elev	4733

MISSED APPROACH: Climb to 6200 then climbing right turn to 9200 direct LKV VORTAC and hold.

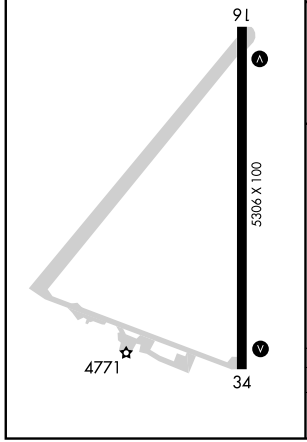
AWOS-3	SEATTLE CENTER	UNICOM
135.525	127.6 346.35	122.8 (CTAF) L

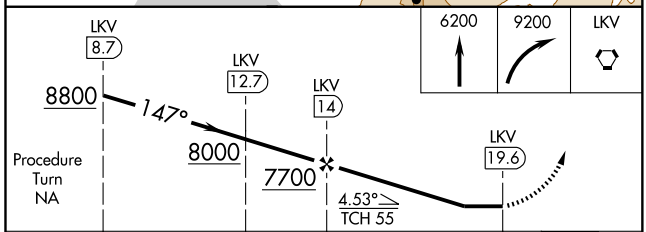


ELEV 4733

MIRL Rwy 16-34 L

REIL Rwy 34 L





CATEGORY	A	B	C	D
CIRCLING	5600-1 867 (900-1)	5600-1¼ 867 (900-1¼)	5600-2½ 867 (900-2½)	5600-2¾ 867 (900-2¾)

NW-1, 03 JUN 2010 to 01 JUL 2010

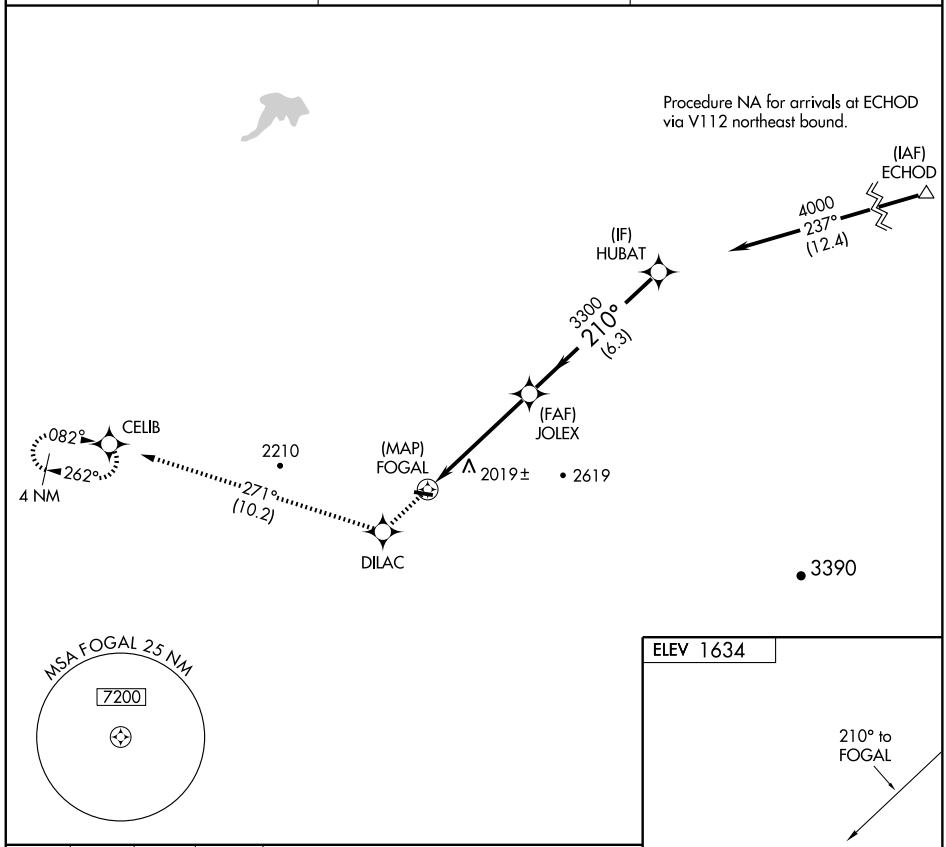
APP CRS	Rwy ldg	N/A
210°	TDZE	N/A
	Apt Elev	1634

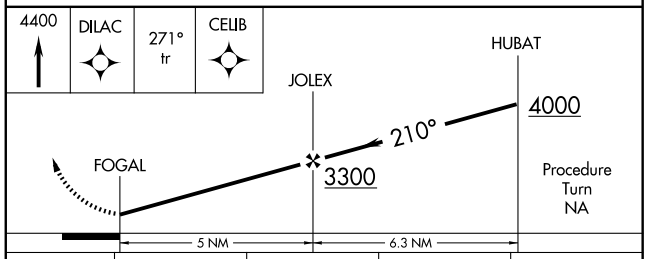
RNAV (GPS)-A
LEXINGTON (9S9)

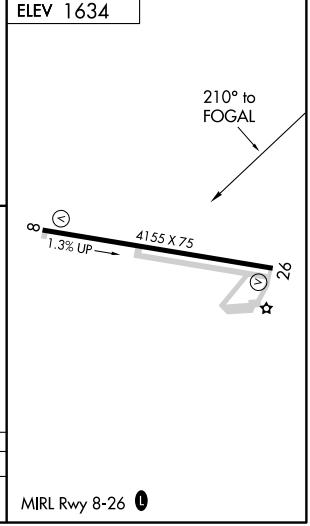
If local altimeter setting not received, use Hermiston altimeter setting and increase all MDAs 220 feet.
Procedure NA at night.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climb to 4400 direct DILAC WP and via 271° track to CELIB WP and hold.

AWOS-3	SEATTLE CENTER	CTAF
134.475	132.6 269.35	122.9 L







CATEGORY	A	B	C	D
CIRCLING	2380-1 746 (800-1)	2460-1¼ 826 (900-1¼)	2480-2½ 846 (900-2½)	2520-3 886 (900-3)

NW-1. 03 JUN 2010 to 01 JUL 2010

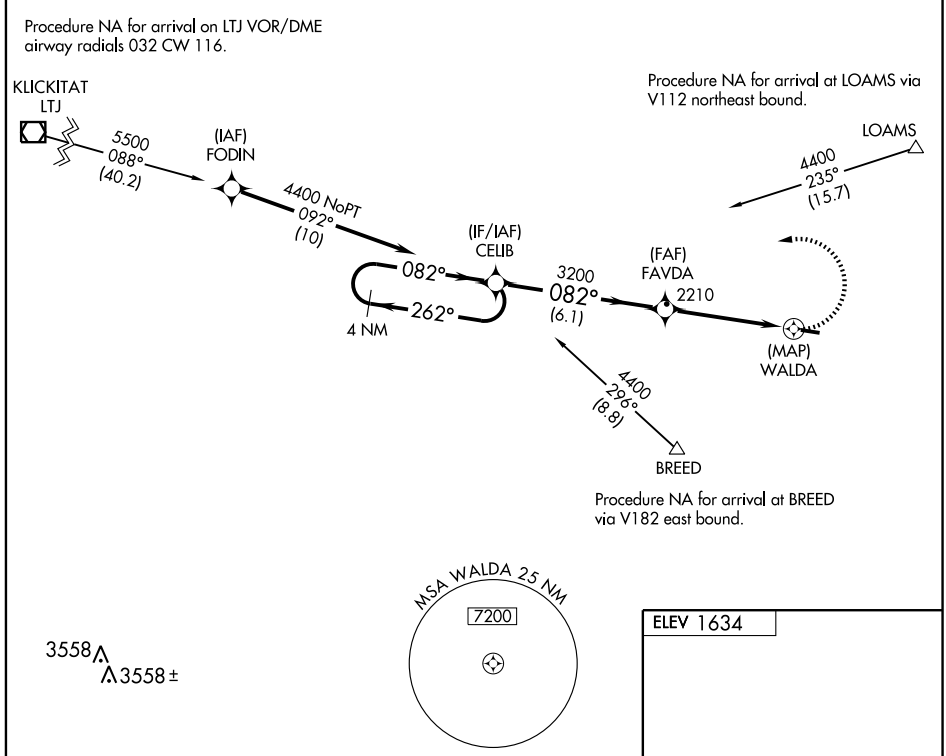
APP CRS	Rwy ldg	4155
082°	TDZE	1613
	Apt Elev	1634

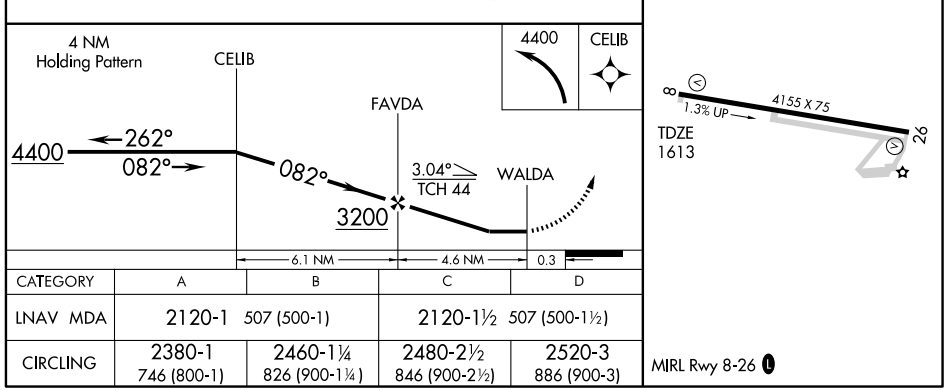
RNAV (GPS) RWY 8
LEXINGTON (9S9)

If local altimeter setting not received, use Hermiston altimeter setting and increase all MDAs 220 feet.
Procedure NA at night.
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.

MISSED APPROACH: Climbing left turn to 4400 direct CELIB WP and hold.

AWOS-3	SEATTLE CENTER	CTAF
134.475	132.6 269.35	122.9 L





CATEGORY	A	B	C	D
LNAV MDA	2120-1 507 (500-1)		2120-1½ 507 (500-1½)	
CIRCLING	2380-1 746 (800-1)	2460-1¼ 826 (900-1¼)	2480-2½ 846 (900-2½)	2520-3 886 (900-3)

APP CRS	Rwy ldg	N/A
344°	TDZE	N/A
	Apt Elev	2437

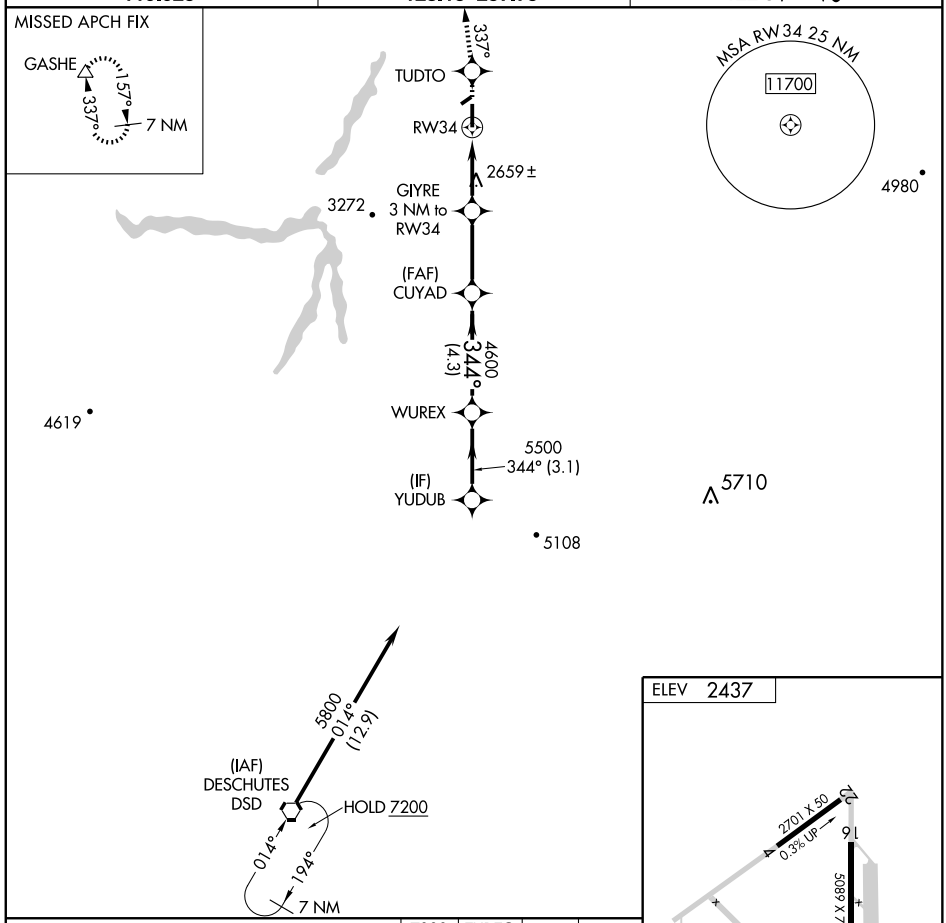
RNAV (GPS)-A
MADRAS MUNI (S33)

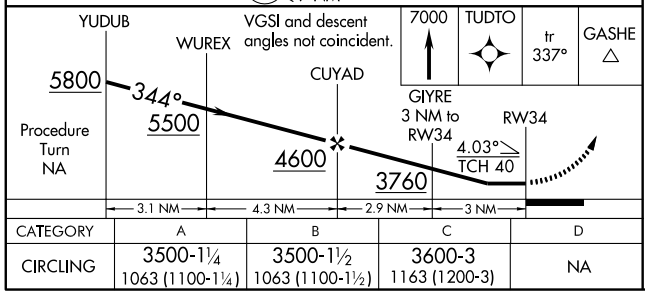
NA

DME/DME RNP-0.3 NA. Visibility reduction by helicopters NA. Use Redmond altimeter setting; when not received, procedure NA.

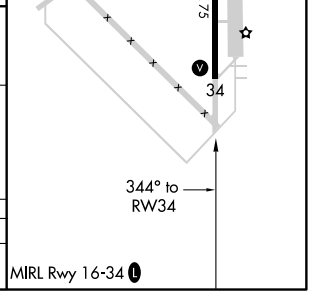
MISSED APPROACH: Climb to 7000 direct TUDTO and on track 337° to GASHE and hold, continue climb-in-hold to 7000.

REDMOND ASOS	SEATTLE CENTER	UNICOM
119.025	128.15 257.75	122.8 (CTAF) L





CATEGORY	A	B	C	D
CIRCLING	3500-1¼ 1063 (1100-1¼)	3500-1½ 1063 (1100-1½)	3600-3 1163 (1200-3)	NA



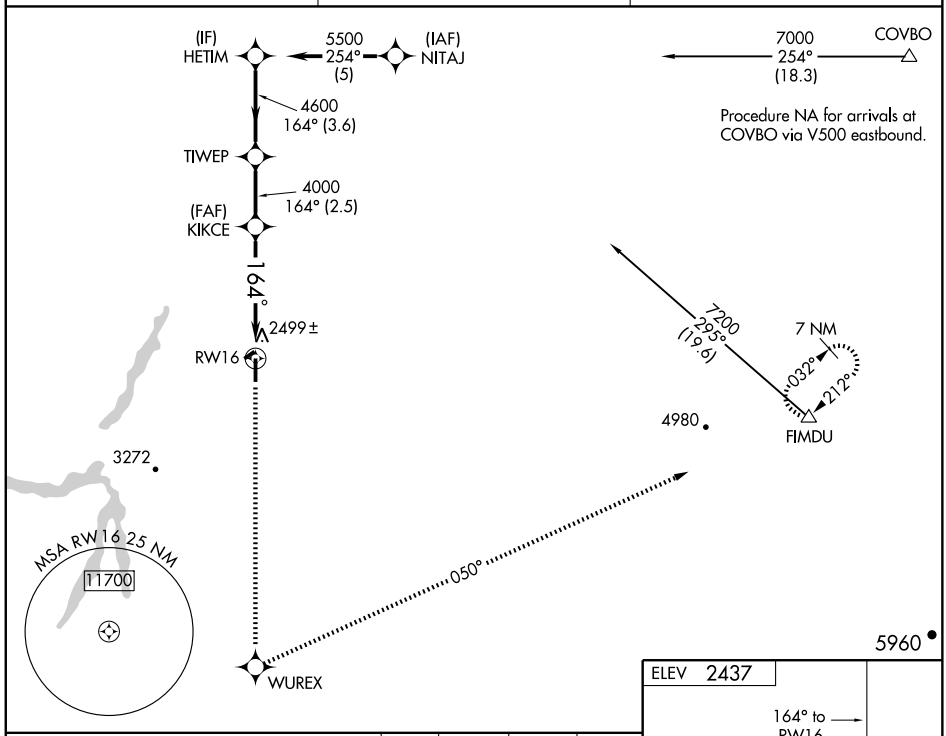
WAAS CH 93518 W16A	APP CRS 164°	Rwy ldg 5089 TDZE 2433 Apt Elev 2437

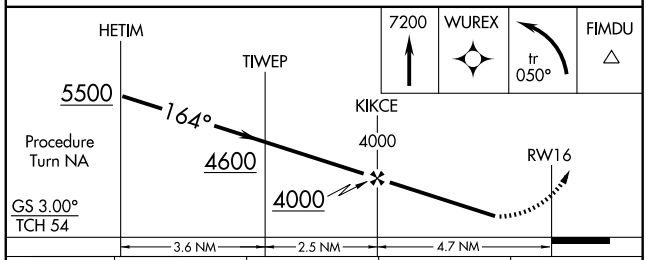
RNAV (GPS) RWY 16
MADRAS MUNI (S33)

Baro-VNAV NA. DME/DME RNP-0.3 NA.
NA Visibility reduction by helicopters NA.
Use Redmond altimeter setting; when not received, procedure NA.

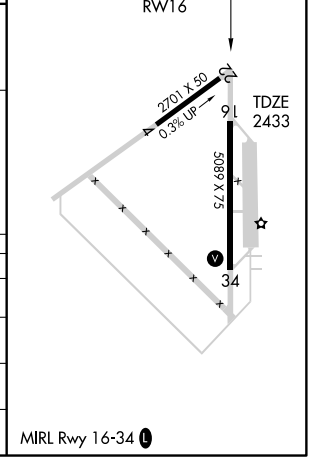
MISSED APPROACH: Climb to 7200 direct WUREX and left turn on track 050° to FIMDU and hold.

REDMOND ASOS	SEATTLE CENTER	UNICOM
119.025	128.15 257.75	122.8 (CTAF) L





CATEGORY	A	B	C	D
LPV DA	3263-3 830 (900-3)			NA
LNAV/VNAV DA	3349-4 916 (1000-4)			NA
LNAV MDA	3440-1¼ 1007 (1100-1¼)	3440-1½ 1007 (1100-1½)	3440-3 1007 (1100-3)	NA
CIRCLING	3460-1¼ 1023 (1100-1¼)	3480-1½ 1043 (1100-1½)	3600-3 1163 (1200-3)	NA



LOC I-MMV	APP CRS	Rwy ldg	5420
110.9	218°	TDZE	161
		Apt Elev	163

ILS or LOC RWY 22

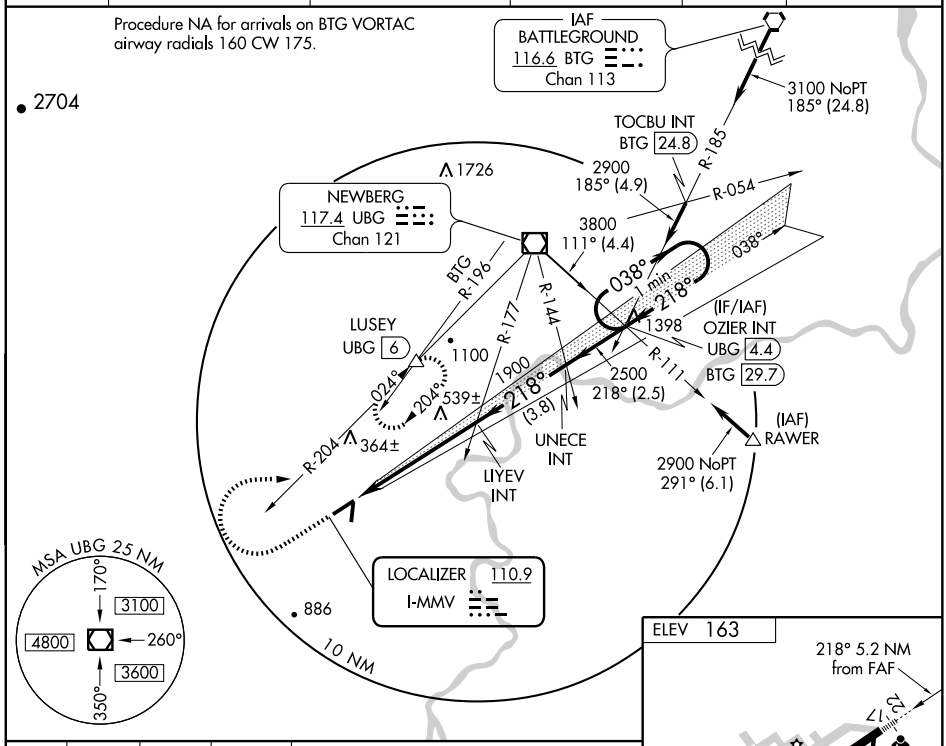
MC MINNVILLE MUNI (MMV)

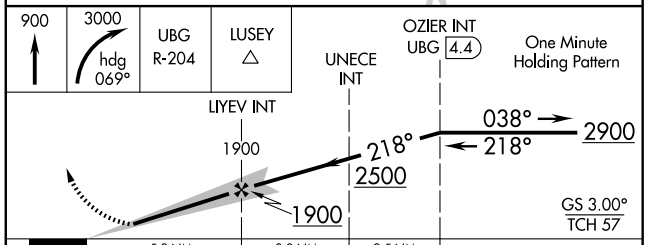
DME Required.
When local altimeter setting not received, use Aurora State altimeter setting and increase all DA and MDA 60 feet. Increase all visibility ¼ mile.

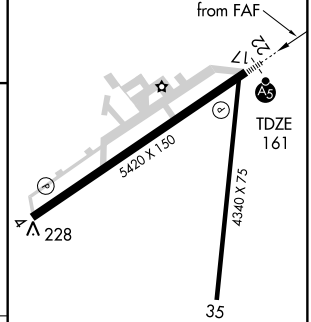
MALSR

MISSED APPROACH: Climb to 900 then climbing right turn to 3000 via heading 069° and UBG VOR/DME R-204 to LUSEY/UBG VOR/DME 6 DME and hold, continue climb-in-hold to 3000. When authorized by ATC, climb-in-hold to 6000.

ASOS	PORTLAND APP CON	SEATTLE CENTER	McMINNVILLE RADIO	CLNC DEL	UNICOM
135.675	126.0 284.6 (NORTH)	125.8 291.7 (SOUTH)	122.45	118.35	123.0 (CTAF) L







REIL Rwy 4 L
HIRL Rwy 4-22 L

CATEGORY	A	B	C	D
S-ILS 22	361-½ 200 (200-½)			
S-LOC 22	600-½ 439 (500-½)		600-¾ 439 (500-¾)	600-1 439 (500-1)
CIRCLING	640-1 477 (500-1)		760-1½ 597 (600-1½)	880-2¼ 717 (800-2¼)

FAF to MAP 5.2 NM					
Knots	60	90	120	150	180
Min:Sec	5:12	3:28	2:36	2:05	1:44

NW-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5420
038°	TDZE	161
	Apt Elev	163

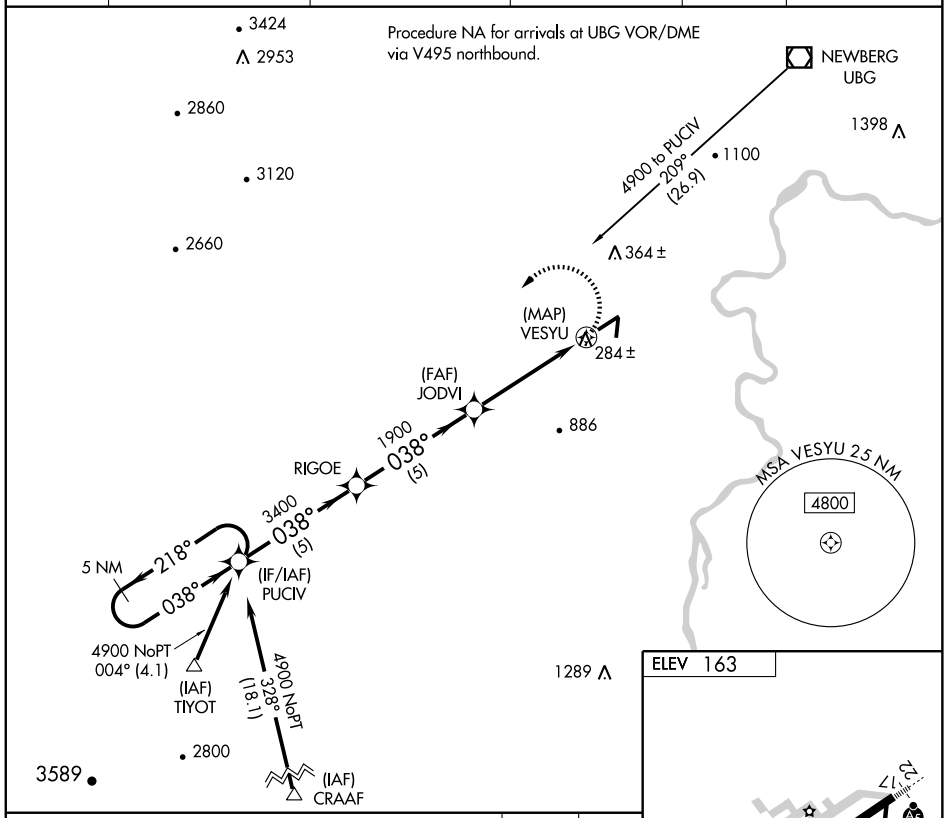
RNAV (GPS) RWY 4

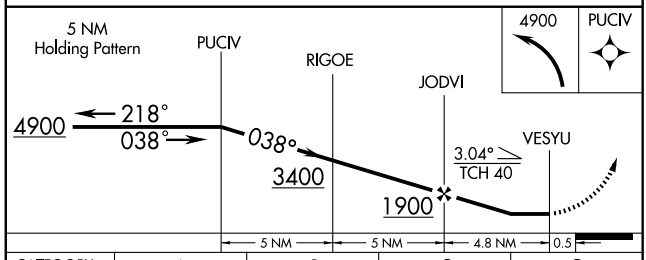
MC MINNVILLE MUNI (MMV)

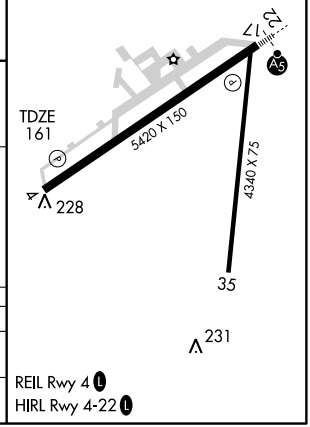
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Aurora State altimeter setting and increase all MDA 60 feet and all visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 4900 direct PUCIV and hold, continue climb-in-hold to 4900.

ASOS	PORTLAND APP CON	SEATTLE CENTER	McMINNVILLE RADIO	CLNC DEL	UNICOM
135.675	126.0 284.6 (NORTH)	125.8 291.7 (SOUTH)	122.45	118.35	123.0 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	580-1 419 (500-1)		580-1¼ 419 (500-1¼)	
CIRCLING	640-1 477 (500-1)		760-1½ 597 (600-1½)	880-2¼ 717 (800-2¼)

REIL Rwy 4 L
HIRL Rwy 4-22 L

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 50309 W22A	APP CRS 218°	Rwy ldg 5420 TDZE 161 Apt Elev 163

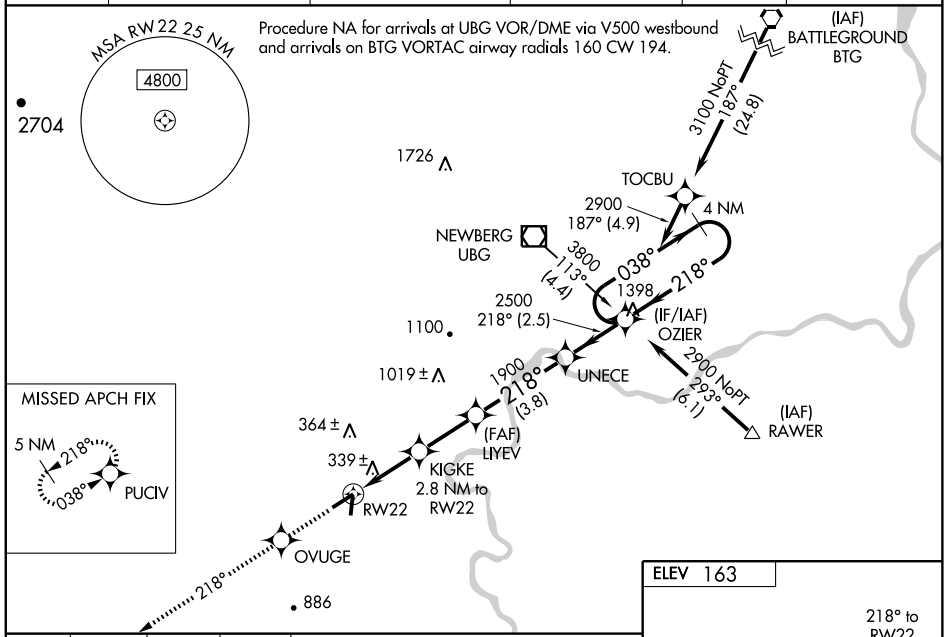
RNAV (GPS) RWY 22
MC MINNVILLE MUNI (MMV)

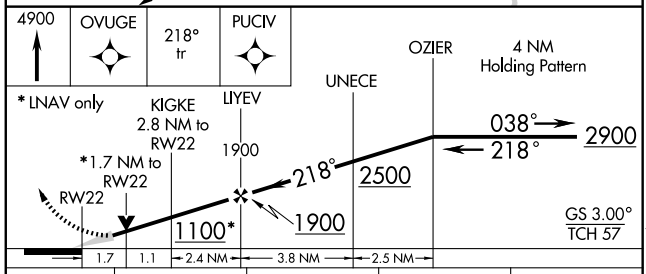
For inoperative MALSR, increase LPV all Cats. visibility to 1.
Baro-VNAV NA when using Aurora State altimeter setting.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA.
For inoperative MALSR when using Aurora State altimeter setting increase LPV visibility all Cats. to 1¼. VDP NA when using Aurora State altimeter setting.
When local altimeter setting not received, use Aurora State altimeter setting and increase all DA and MDA 60 feet, increase all visibility ¼ mile.

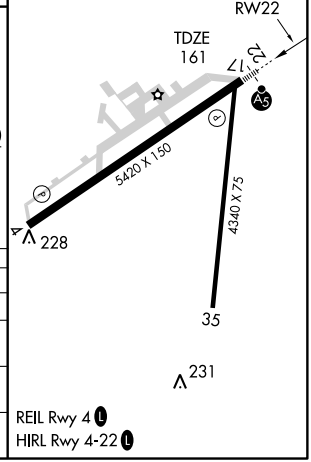
MALSR

MISSED APPROACH: Climb to 4900 direct OVUGE then via 218° track to PUCIV and hold, continue climb-in-hold to 4900.

ASOS	PORTLAND APP CON	SEATTLE CENTER	McMINNVILLE RADIO	CLNC DEL	UNICOM
135.675	126.0 284.6 (NORTH)	125.8 291.7 (SOUTH)	122.45	118.35	123.0 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	474-½ 313 (400-½)			
LNAV/VNAV DA	633-1¼ 472 (500-1¼)			
LNAV MDA	740-½ 579 (600-½)		740-1 579 (600-1)	740-1¼ 579 (600-1¼)
CIRCLING	740-1 577 (600-1)		760-1½ 597 (600-1½)	880-2¼ 717 (800-2¼)

NW-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME UBG 117.4 Chan 121	APP CRS 014°	Rwy ldg N/A TDZE N/A Apt Elev 163

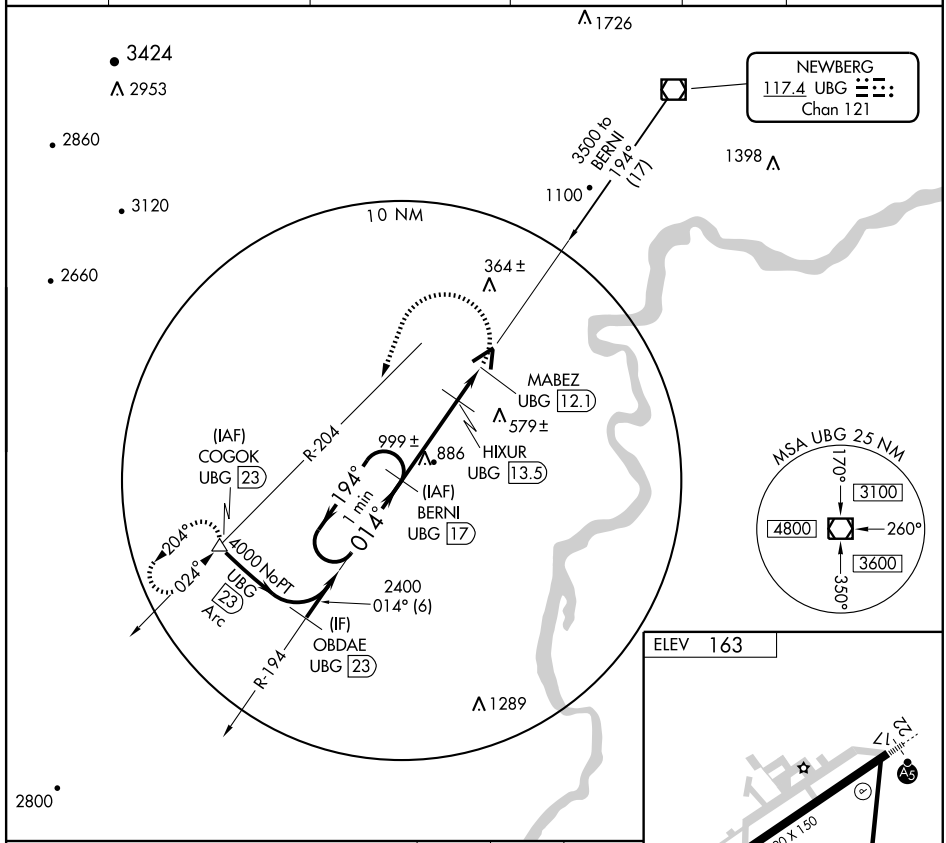
VOR/DME-B

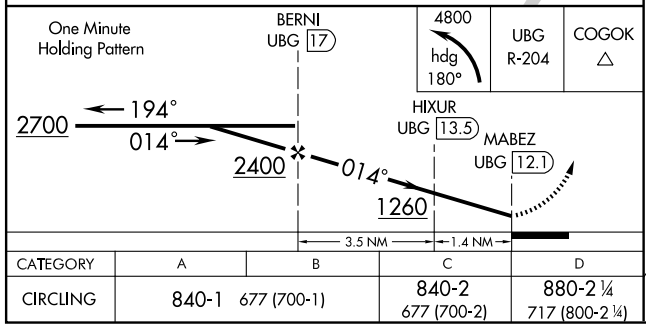
MC MINNVILLE MUNI (MMV)

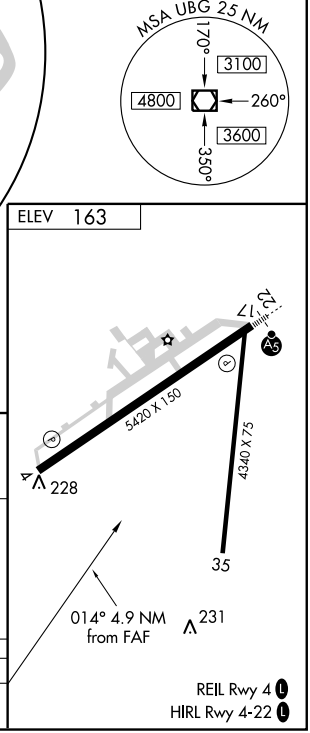
When local altimeter setting not received use Aurora State altimeter setting and increase all MDA 60 feet and all visibility ¼ mile.

MISSED APPROACH: Climbing left turn to 4800 via heading 180° and UBG VOR/DME R-204 to COGOK/UBG 23 DME and hold, continue climb-in-hold to 4800. When authorized by ATC, climb-in-hold to 6000.

ASOS	PORTLAND APP CON	SEATTLE CENTER	McMINNVILLE RADIO	CLNC DEL	UNICOM
135.675	126.0 284.6 (NORTH)	125.8 291.7 (SOUTH)	122.45	118.35	123.0 (CTAF) L







CATEGORY	A	B	C	D
CIRCLING	840-1 677 (700-1)		840-2 677 (700-2)	880-2 ¼ 717 (800-2 ¼)

REIL Rwy 4 L
HIRL Rwy 4-22 L

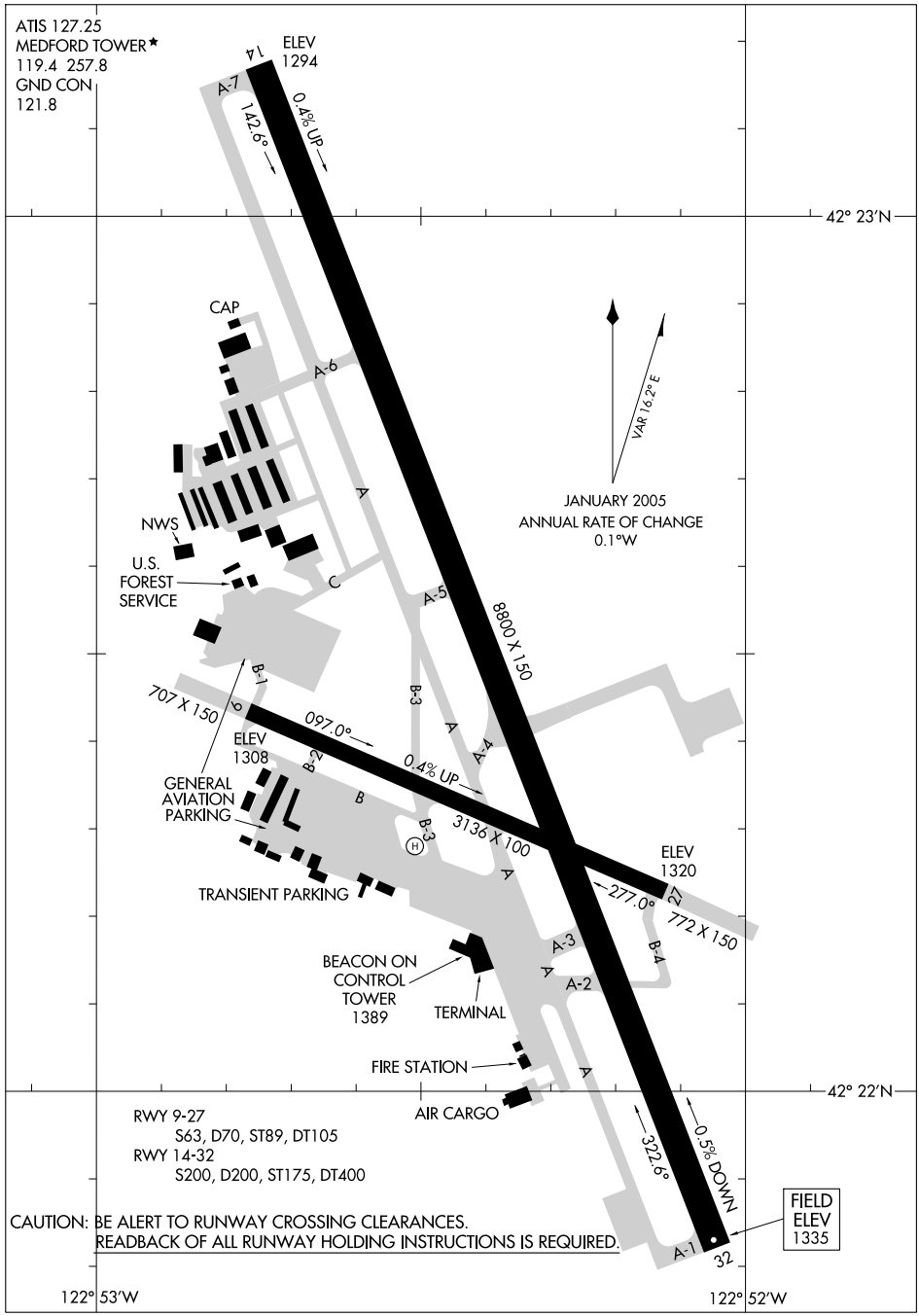
NW-1, 03 JUN 2010 to 01 JUL 2010

06215

AIRPORT DIAGRAM

AL-251 (FAA)

MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)
MEDFORD, OREGON



NW-1. 03 JUN 2010 to 01 JUL 2010

BRUTE FIVE DEPARTURE

MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)
SL-251 (FAA)
MEDFORD, OREGON

ATIS 127.25
GND CON
121.8
MEDFORD TOWER ★
119.4 (CTAF) 257.8
CASCADE DEP CON ★
124.3 379.9
SEATTLE CENTER
124.85 306.3

MOURN
N42°59.50′
W123°00.47′
L-1-2

108.2 RBG
R-107
Chan 19

31
333°
(16)
7000
V23-121

DREWS
N42°43.75′
W122°53.38′
H-3

UZEHE
N42°43.64′
W122°57.52′

CUTTR
N42°41.36′
W122°43.71′
L-2

15
15
15
R-333
R-345
R-014
OED 15 Arc

NOTE: DME required.

TAKE-OFF MINIMUMS

Rwy 9, NA - Obstacles
Rwy 27, NA - Obstacle
Rwys 14, 32: Standard with a minimum climb of:
Cat A/B 400′ per NM to 6300,
Cat C/D 460′ per NM to 6000.

ROGUE VALLEY
113.6 OED
Chan 83

2236 ±
R-098
R-084
15

060°
098°
10
063°
(6)
CEROS
N42°25.28′
W122°35.07′

MEDFORD
356 MEF
N42° 23.50′ - W122° 52.73′

063°
(7)
098°
(6)
BRUTE
N42°24.45′
W122°43.35′
15
LANKS
N42°21.94′
W122°36.75
L-2

4630 ±
R-138
15
OED 15 Arc

R-161
15
R-157
15
R-149
15

COPPO
N42°13.77′
W122°54.61′
H-3

JADUN
N42°14.96′
W122°46.89′

HANDY
N42°14.11′
W122°50.47
H-3

V287
10000
*9500
138°
(34)

FIBUR
N42°13.81′
W122°53.21′

157°
(5)
20
V23

TALEM
N42°08.83′
W122°52.69′
L-2

49
109.6 FJS
Chan 33

GRENA
N41°43.52′
W122°29.16′
L-2

R-022

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 14: Climbing right turn direct to MEF NDB, depart MEF NDB 063° bearing outbound to BRUTE INT. Thence. . . .

TAKE-OFF RUNWAY 32: Climbing right turn via 060° heading and OED R-098 to BRUTE INT. Thence. . . .

. . . . via (transition) or (assigned route). Maintain 11000 or assigned altitude.

COPPO TRANSITION (BRUTE5.COPPO) : From over BRUTE INT via OED R-098 to LANKS INT. Turn right and proceed via the OED 15 DME Arc to COPPO DME.

CUTTR TRANSITION (BRUTE5.CUTTR) : From over BRUTE INT via MEF NDB bearing 063° to CEROS INT. Turn left and proceed via the OED 15 DME Arc to CUTTR DME.

DREWS TRANSITION (BRUTE5.DREWS) : From over BRUTE INT via MEF NDB bearing 063° to CEROS INT. Turn left and proceed via the OED 15 DME Arc to DREWS DME.

GRENA TRANSITION (BRUTE5.GRENA) : From over BRUTE INT via OED R-098 to LANKS INT. Turn right and proceed via the OED 15 DME Arc to JADUN DME. Then via OED R-138 to GRENA INT.

HANDY TRANSITION (BRUTE5.HANDY) : From over BRUTE INT via OED R-098 to LANKS INT. Turn right and proceed via the OED 15 DME Arc to HANDY DME.

LANKS TRANSITION (BRUTE5.LANKS) : From over BRUTE INT via OED R-098 to LANKS INT.

MOURN TRANSITION (BRUTE5.MOURN) : From over BRUTE INT via MEF NDB bearing 063° to CEROS INT. Turn left and proceed via the OED 15 DME Arc to UZEHE DME. Then via OED R-333 to MOURN INT.

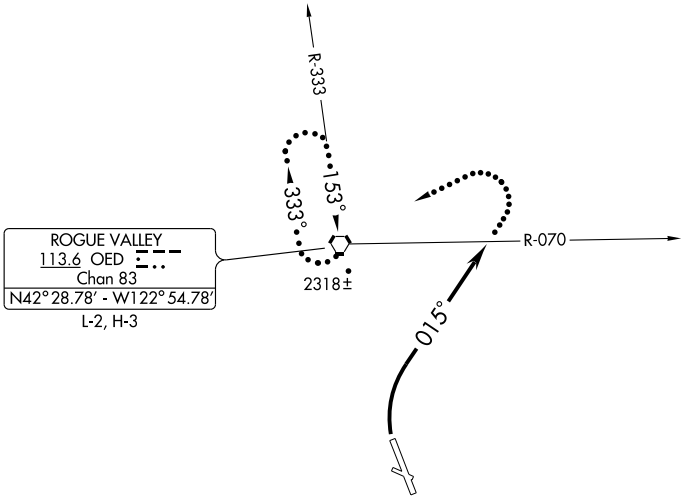
TALEM TRANSITION (BRUTE5.TALEM) : From over BRUTE INT via OED R-098 to LANKS INT. Turn right and proceed via the OED 15 DME Arc to FIBUR DME. Then via OED R-157 to TALEM DME.

UZEHE TRANSITION (BRUTE5.UZEHE) : From over BRUTE INT via MEF NDB bearing 063° to CEROS INT. Turn left and proceed via the OED 15 DME Arc to UZEHE DME.

NW-1. 03 JUN 2010 to 01 JUL 2010

EAGLE THREE DEPARTURE

ATIS 127.25
GND CON
121.8
MEDFORD TOWER★
119.4 257.8
CASCADE DEP CON★
124.3 379.9
SEATTLE CENTER
124.85 306.3



TAKE-OFF MINIMUMS

RWY 32: 1700-3 or standard with minimum climb of 300′ per NM to 3000′.

RWYS 9, 14, and 27: Not authorized for this departure procedure.
ATC climb rate of 410′ per NM until passing 6300 required.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 32: Climbing right turn to heading 015°, maintain 11000′ or assigned altitude, expect radar vectors to assigned route. Expect filed altitude/flight level five minutes after departure.

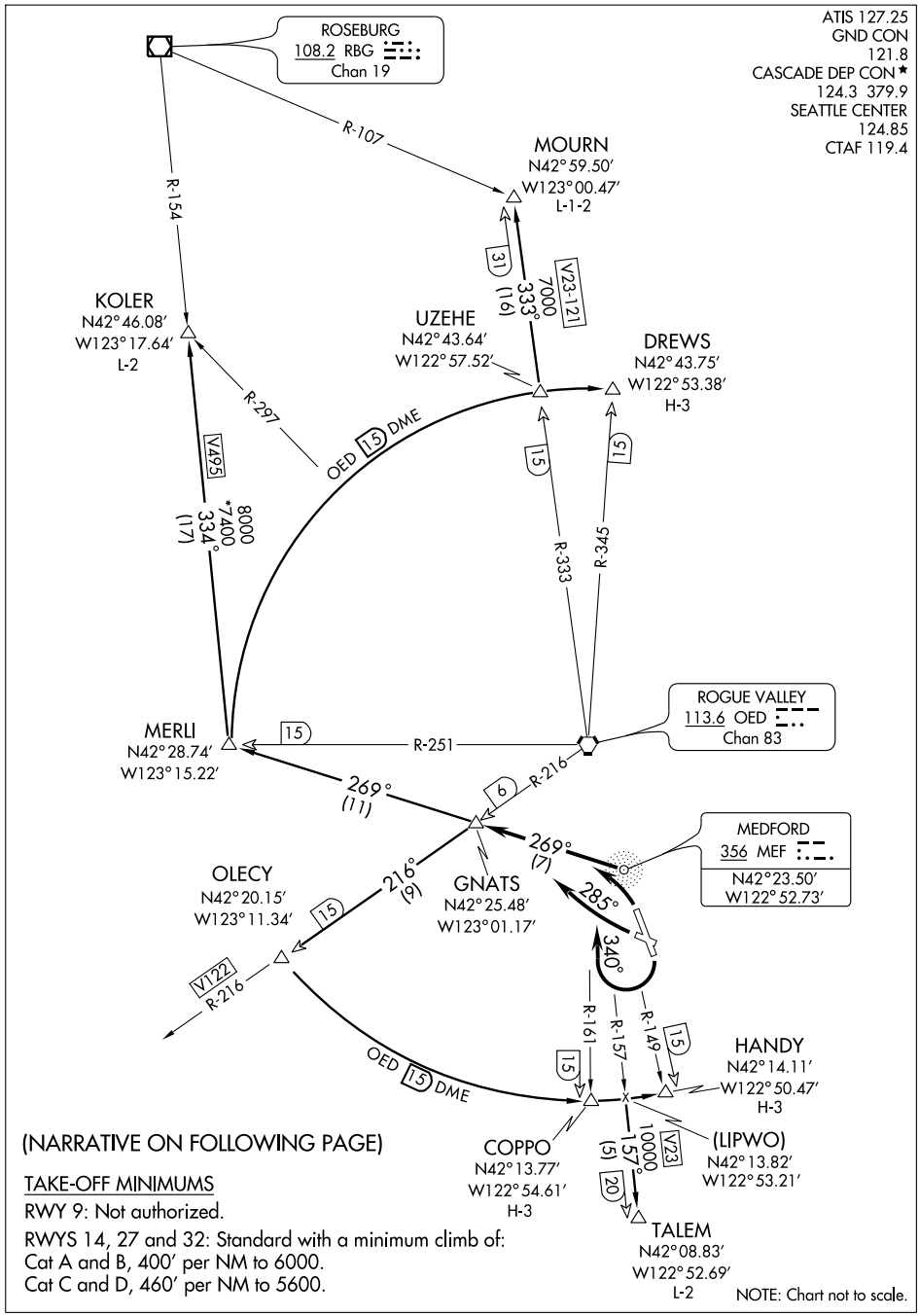
LOST COMMUNICATIONS: If no contact with ATC crossing the OED R-070, turn left, proceed direct OED VORTAC, continue climb in holding pattern (NW, right turn, 153° inbound) to minimum crossing altitude/minimum enroute altitude before proceeding on course.

GNATS THREE DEPARTURE

MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)

SL-251 (FAA)

MEDFORD, OREGON



(NARRATIVE ON FOLLOWING PAGE)

TAKE-OFF MINIMUMS

RWY 9: Not authorized.

RWYS 14, 27 and 32: Standard with a minimum climb of:
Cat A and B, 400′ per NM to 6000.
Cat C and D, 460′ per NM to 5600.

NOTE: Chart not to scale.

NW-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 14: Climbing right turn via 340° heading and MEF NDB 269° bearing outbound to GNATS INT. Thence. . . .

TAKE-OFF RUNWAY 27: Climbing right turn via 285° heading and MEF NDB 269° bearing outbound to GNATS INT. Thence. . . .

TAKE-OFF RUNWAY 32: Climbing left turn via MEF NDB 269° bearing outbound to GNATS INT. Thence. . . .

. . . .via (transition) or (assigned route). Maintain 10,000′ or assigned lower altitude.

COPPO TRANSITION (GNATS3.COPPO): From over GNATS INT via OED R-216 to OLECY INT, then via the OED 15 DME Arc to COPPO DME.

DREWS TRANSITION (GNATS3.DREWS): From over GNATS INT via the MEF NDB 269° bearing to MERLI INT, then via the OED 15 DME Arc to DREWS DME.

HANDY TRANSITION (GNATS3.HANDY): From over GNATS INT via the OED R-216 to OLECY INT, then via the OED 15 DME Arc to HANDY DME.

KOLER TRANSITION (GNATS3.KOLER): From over GNATS INT via MEF NDB 269° bearing to MERLI INT, then via RBG R-154 to KOLER INT.

MOURN TRANSITION (GNATS3.MOURN): From over GNATS INT via MEF NDB 269° bearing to MERLI INT, then via the OED 15 DME Arc to intercept OED R-333 to MOURN INT.

TALEM TRANSITION (GNATS3.TALEM): From over GNATS INT via OED R-216 to OLECY INT, then via the OED 15 DME Arc to intercept OED R-157 to TALEM DME.

NW-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-MFR	APP CRS	Rwy ldg	8800
110.3	140°	TDZE	1303
Chan 40		Apt Elev	1335

ILS or LOC/DME RWY 14

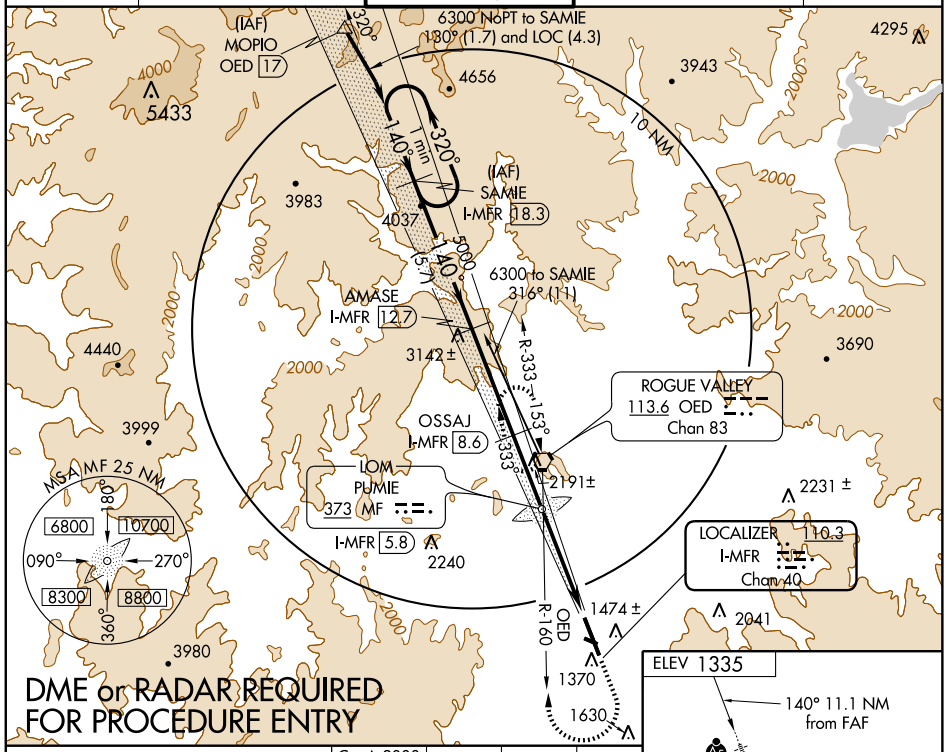
MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)

For inoperative MALSR, increase S-ILS 14 CAT B visibility to RVR 6000, CAT C visibility to 1½ mile, and CAT D visibility to 2 miles.

MALSR

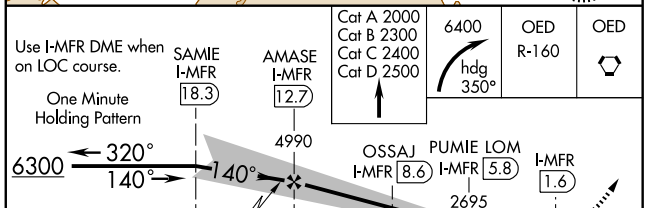
MISSED APPROACH: Cat A climb to 2000; Cat B climb to 2300; Cat C climb to 2400; Cat D climb to 2500, then climbing right turn to 6400 via heading 350° and OED R-160 to OED VORTAC and hold, continue climb-in-hold to 6400.

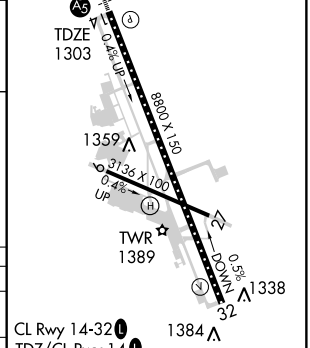
ATIS	CASCADE APP CON★	MEDFORD TOWER★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF) L 257.8	121.8	122.95



Use I-MFR DME when on LOC course.

One Minute Holding Pattern





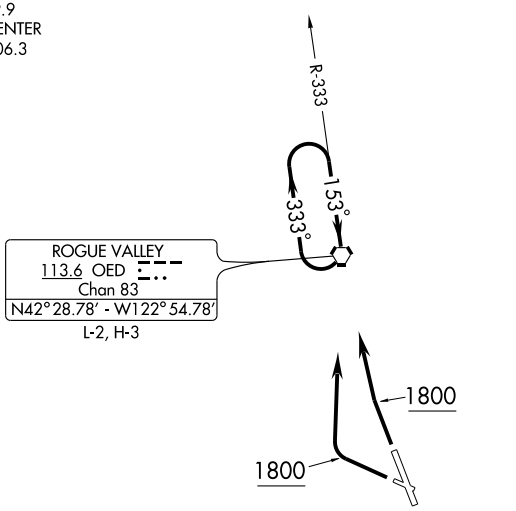
CATEGORY	A	B	C	D
S-ILS 14	1553/24 250 (300-½)	1634/40 331 (300-¾)	1753/50 450 (500-1)	1862-1½ 559 (600-1½)
S-LOC 14	1640/24 337 (400-½)	1800/24 497 (500-½)	1920/60 617 (600-1¼)	2000-1¾ 697 (700-1¾)
CIRCLING	2000-1 665 (700-1)		2000-1¾ 665 (700-1¾)	2140-2½ 805 (900-2½)

CL Rwy 14-32 L
TDZ/CL Rwy 14 L
REIL Rwy 32 L
MIRL Rwy 9-27
HIRL Rwy 14-32 L

NW-1, 03 JUN 2010 to 01 JUL 2010

JACKSON SEVEN DEPARTURE

ATIS 127.25
GND CON
121.8
MEDFORD TOWER★
119.4 257.8
CASCADE DEP CON★
124.3 379.9
SEATTLE CENTER
124.85 306.3



TAKE-OFF MINIMUMS

RWY 9: Not authorized.

RWY 14: Standard with a minimum climb of:
Cats A/B, 270′ per NM to 3100′, Cats C/D, 440′ per NM to 4900.

RWY 27: Standard with minimum climb of 360′ per NM to 3600.

RWY 32: Standard with a minimum climb of 300′ per NM to 3000.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 9: Not authorized.

TAKE-OFF RUNWAYS 14 and 27: Climb runway heading to 1800 then turn right. Thence. . . .

TAKE-OFF RUNWAY 32: Climb runway heading to 1800. Thence. . . .

. . . . climb direct to the OED VORTAC. Continue climb in OED holding pattern (NW, right turn, 153° inbound) at or above 7000′ before proceeding on course.

NW-1. 03 JUN 2010 to 01 JUL 2010

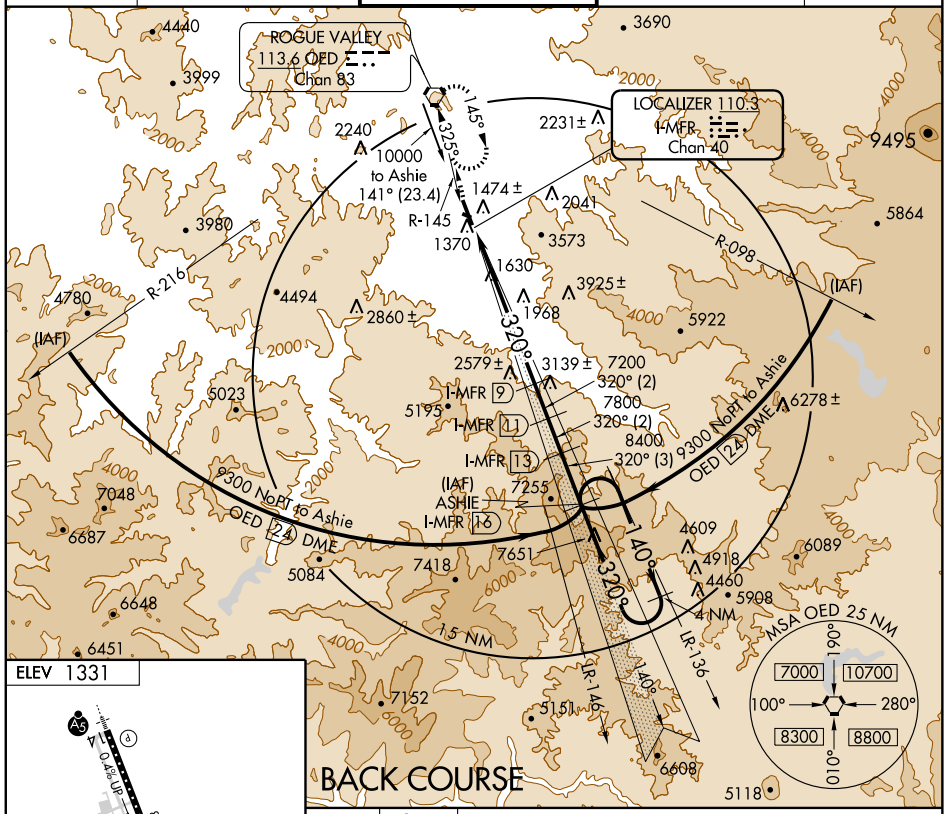
LOC/DME I-MFR	APP CRS	Rwy ldg	N/A
110.3	320°	TDZE	N/A
Chan 40		Apt Elev	1331

LOC/DME BC-B

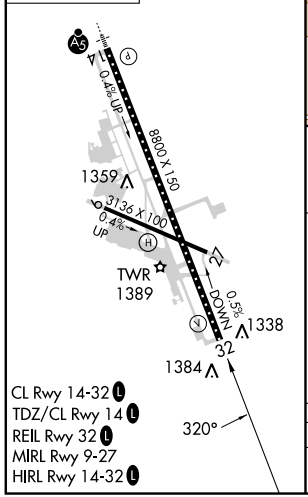
MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)

MISSED APPROACH: Climb to 7600 direct OED VORTAC and hold, continue climb-in-hold to 7600.

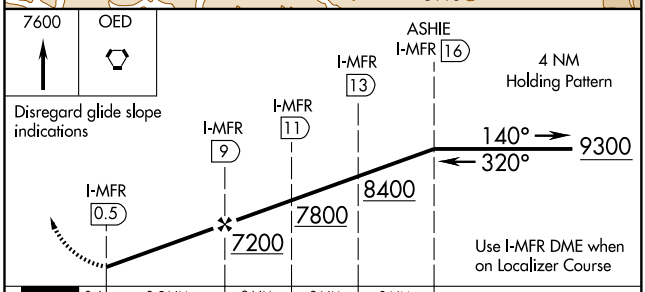
ATIS	CASCADE APP CON★	MEDFORD TOWER★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF)L 257.8	121.8	122.95



ELEV 1331



CL Rwy 14-32 L
TDZ/CL Rwy 14 L
REIL Rwy 32 L
MIRL Rwy 9-27
HIRL Rwy 14-32 L



CATEGORY	A	B	C	D
CIRCLING	3540-1¼ 2209 (2300-1¼)	3540-1½ 2209 (2300-1½)	3540-3 2209 (2300-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	N/A
325°	TDZE	N/A
	Apt Elev	1335

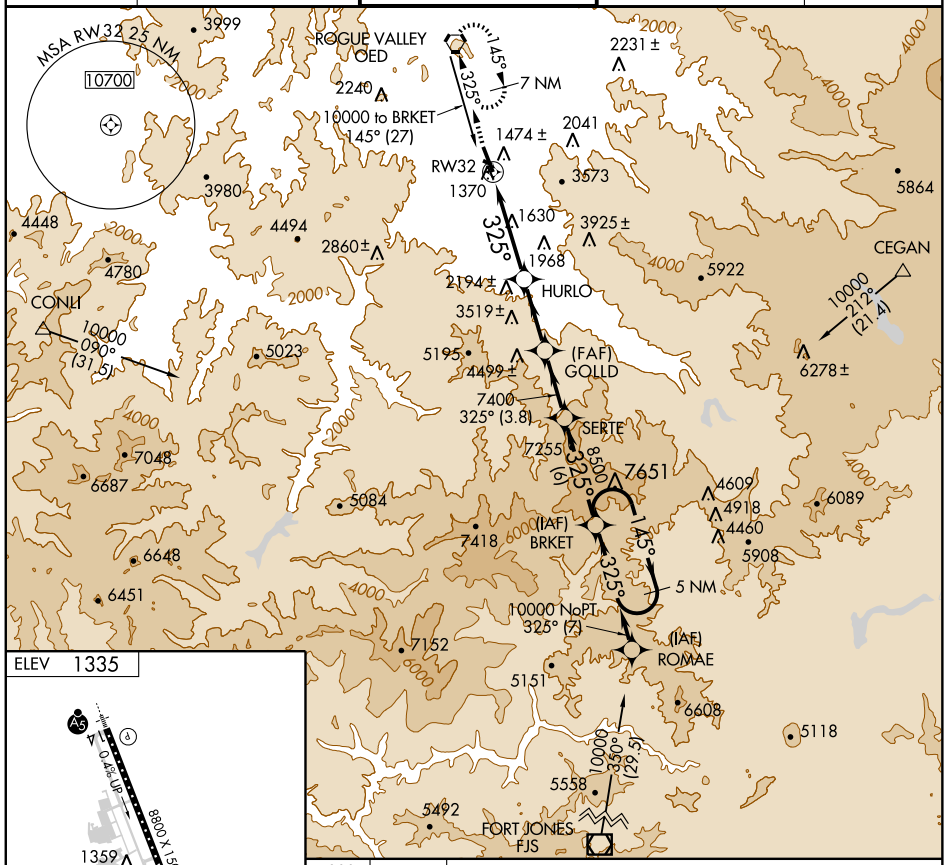
RNAV (GPS)-D

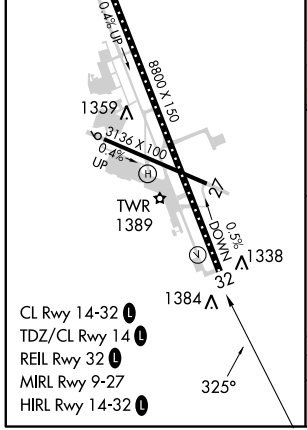
MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)

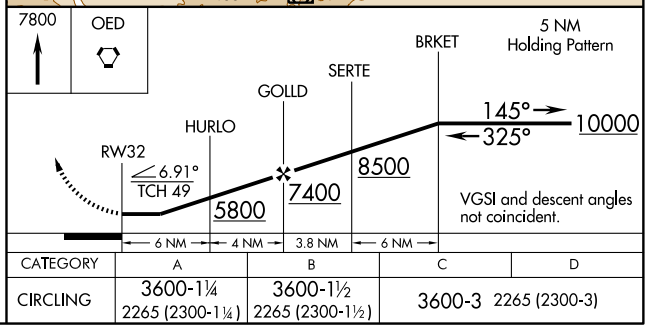
DME/DME RNP-0.3 not authorized.

MISSED APPROACH: Climb to 7800 direct OED VORTAC and hold, continue climb-in-hold to 7800.

ATIS	CASCADE APP CON★	MEDFORD TOWER★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF) L 257.8	121.8	122.95







CATEGORY	A	B	C	D
CIRCLING	3600-1¼ 2265 (2300-1¼)	3600-1½ 2265 (2300-1½)	3600-3 2265 (2300-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	8800
140°	TDZE	1303
	Apt Elev	1335

RNAV (GPS) RWY 14

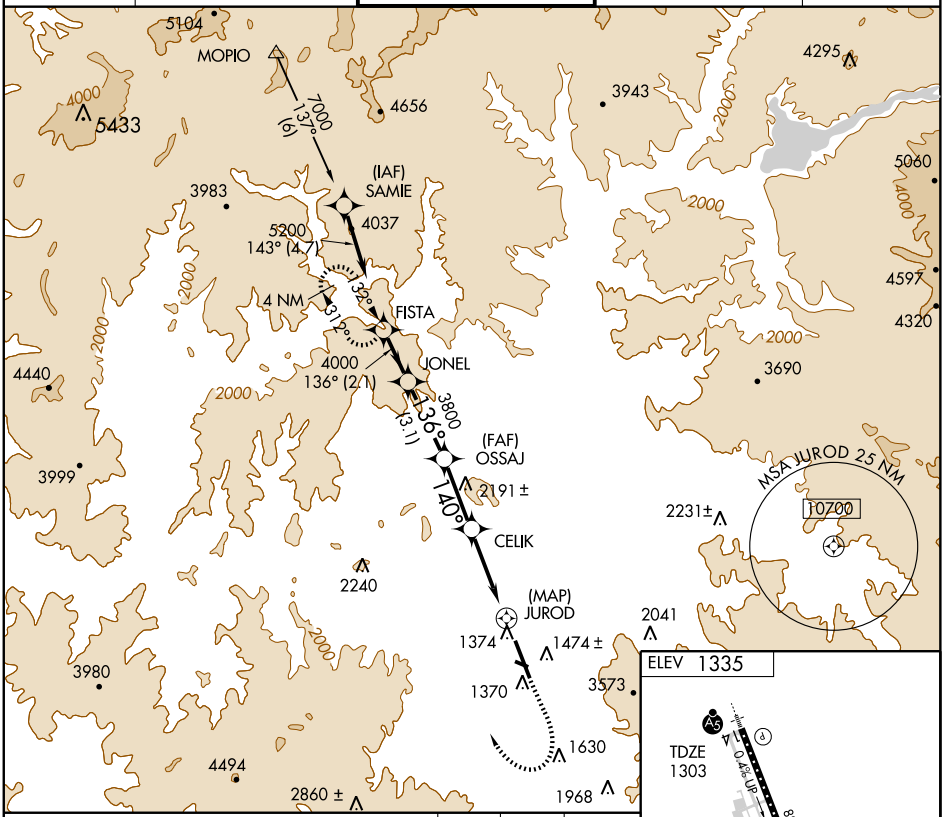
MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)

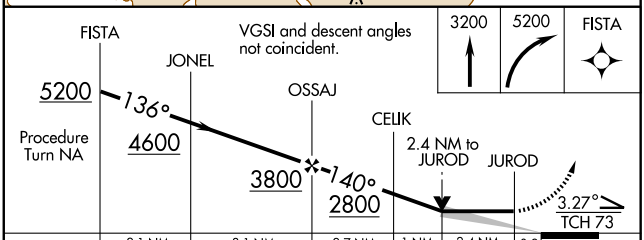
DME/DME RNP-0.3 NA.

MALSR

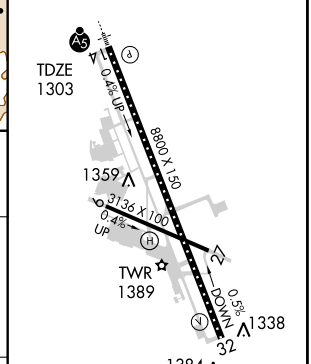
MISSED APPROACH: Climb to 3200 then climbing right turn to 5200 direct FISTA WP and hold.

ATIS	CASCADE APP CON★	MEDFORD TOWER★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF)L 257.8	121.8	122.95





CATEGORY	A	B	C	D
LNAV MDA	2400/40 1097 (1100-¾)	2400/50 1097 (1100-1)	2400-2½ 1097 (1100-2½)	
CIRCLING	2400-1¼ 1065 (1100-1¼)	2400-1½ 1065 (1100-1½)	2400-3 1065 (1100-3)	



CL Rwy 14-32 L
TDZ/CL Rwy 14 L
REIL Rwy 32 L
MIRL Rwy 9-27 7651
HIRL Rwy 14-32 L

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC OED 113.6 Chan 83	APP CRS 146°	Rwy ldg N/A TDZE N/A Apt Elev 1335

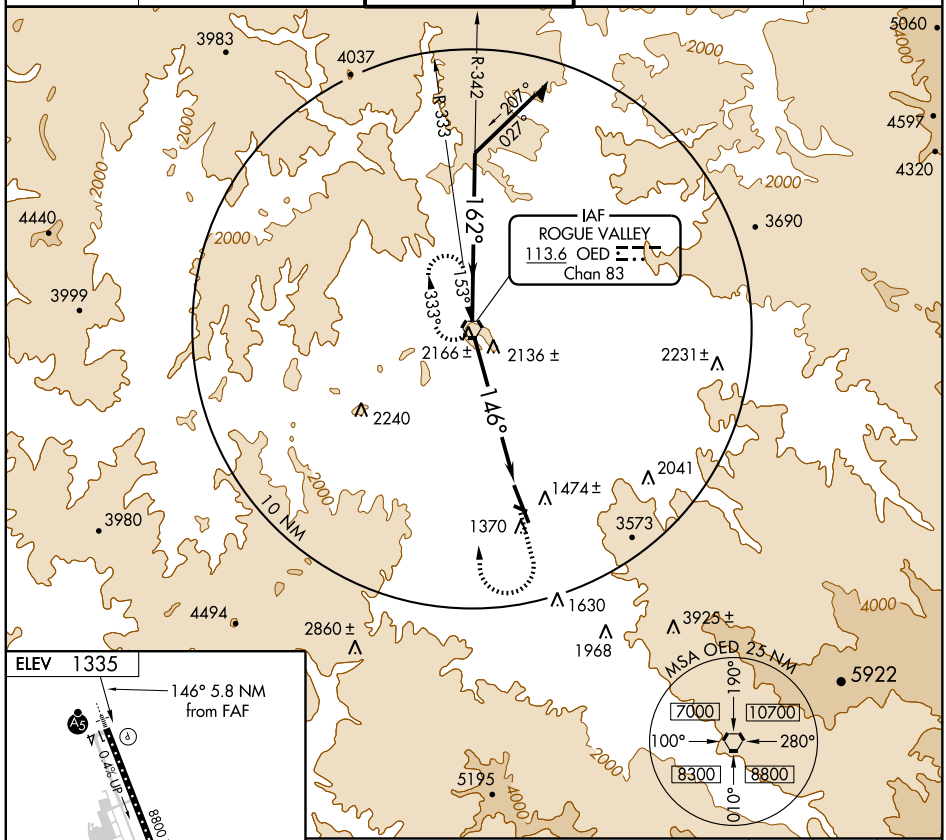
VOR-A

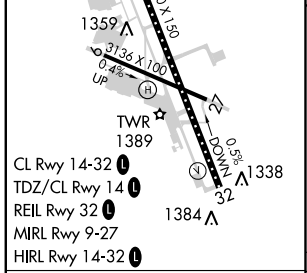
MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)

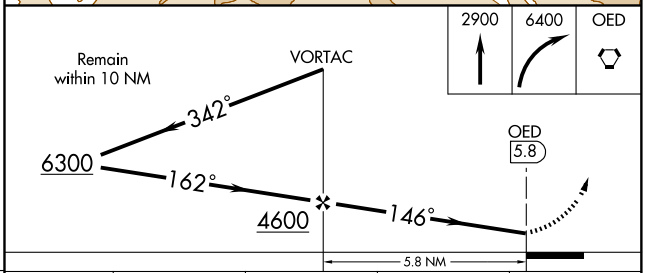
If local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 2900 then climbing right turn to 6400 direct OED VORTAC and hold, continue climb-in-hold to 6400.

ATIS 5433	CASCADE APP CON★	MEDFORD TOWER★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF) L 257.8	121.8	122.95







FAF to MAP 5.8 NM					
Knots	60	90	120	150	180
Min:Sec	5:48	3:52	2:54	2:19	1:56

CATEGORY	A	B	C	D
CIRCLING	2680-1¼ 1345 (1400-1¼)	2680-1½ 1345 (1400-1½)	2680-3 1345 (1400-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

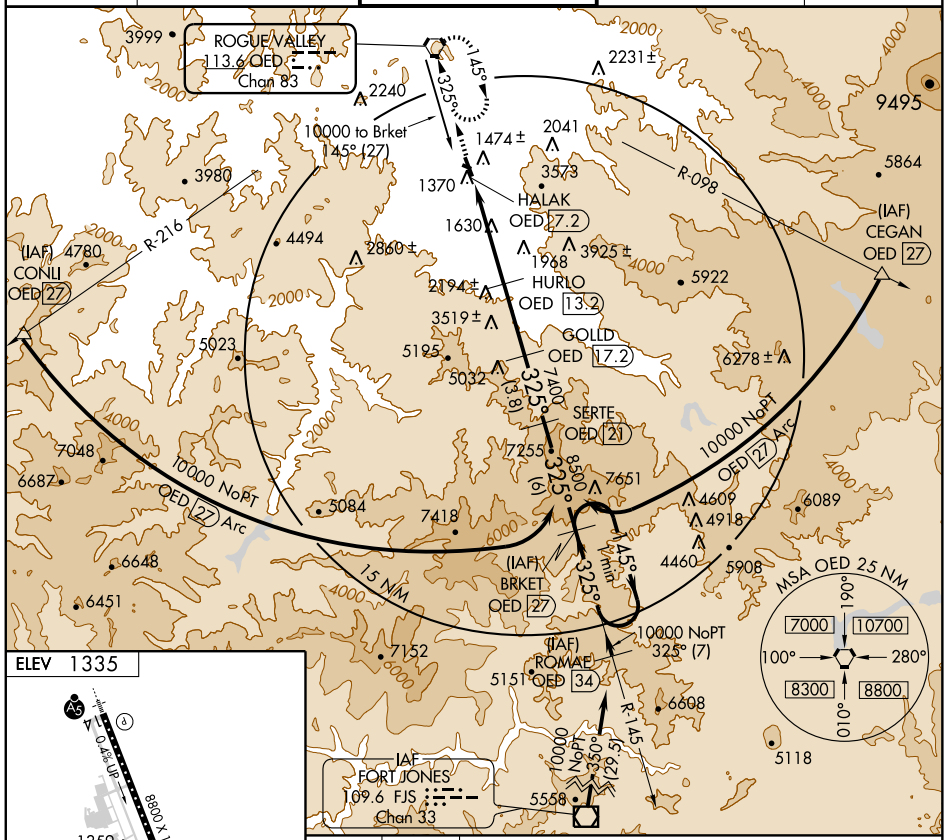
VORTAC OED 113.6 Chan 83	APP CRS 325°	Rwy ldg N/A TDZE N/A Apt Elev 1335

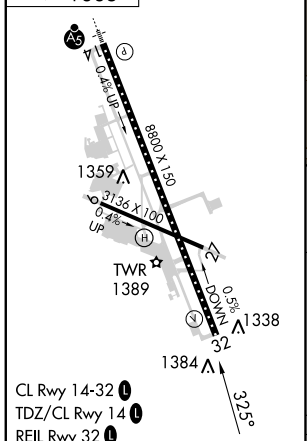
VOR/DME-C

MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)

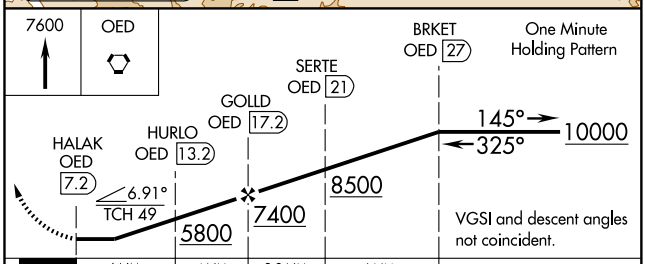
MISSED APPROACH: Climb to 7600 direct OED VORTAC and hold, continue climb-in-hold to 7600.

ATIS	CASCADE APP CON★	MEDFORD TOWER★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF) L 257.8	121.8	122.95





CL Rwy 14-32 L
TDZ/CL Rwy 14 L
REIL Rwy 32 L
MIRL Rwy 9-27
HIRL Rwy 14-32 L



CATEGORY	A	B	C	D
CIRCLING	3600-1¼ 2265 (2300-1¼)	3600-1½ 2265 (2300-1½)	3600-3 2265 (2300-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC OED	APP CRS	Rwy ldg	8800
113.6	146°	TDZE	1303
Chan 83		Apt Elev	1335

VOR/DME RWY 14

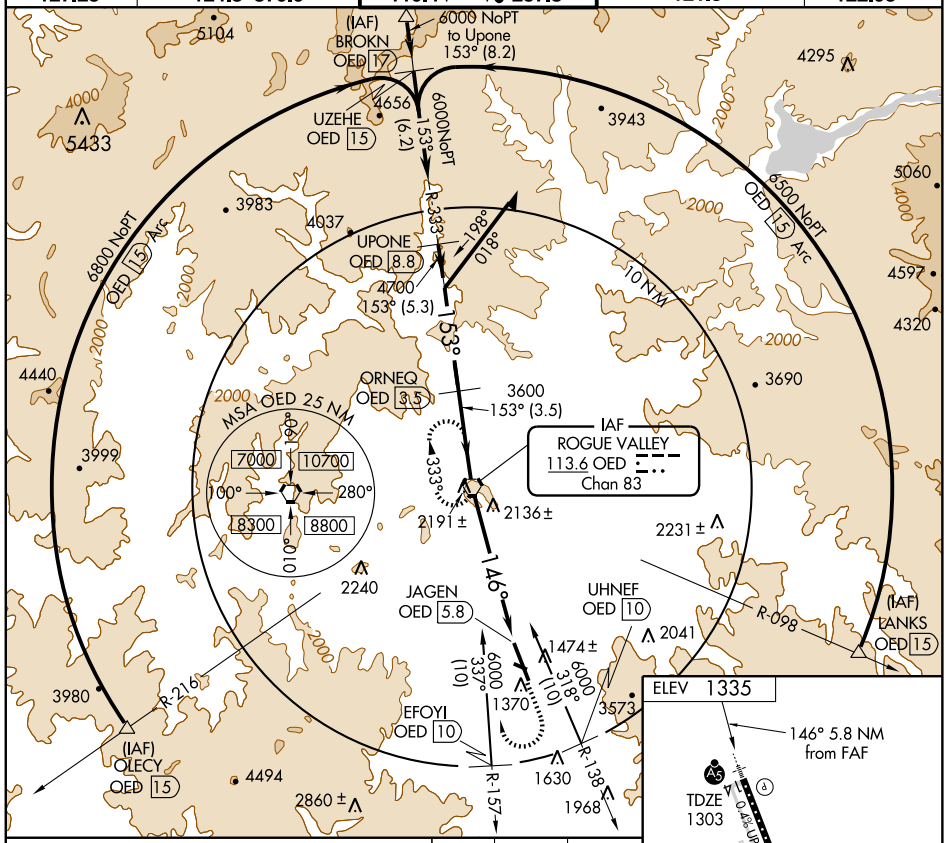
MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)

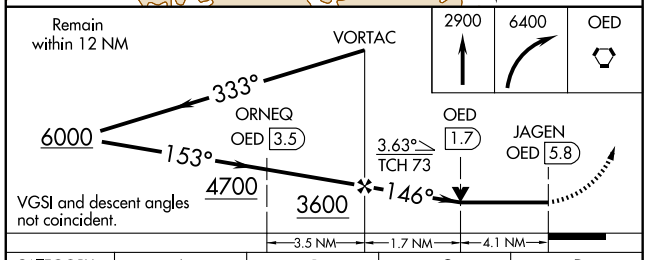
T A Inoperative table does not apply to S-14 CAT A. For inoperative MALSR increase S-14 CAT B visibility to 1½.

MALSR

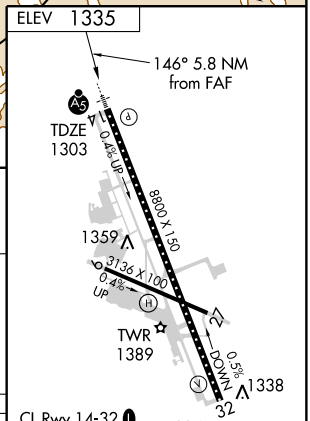
MISSED APPROACH: Climb to 2900 then climbing right turn to 6400 direct OED VORTAC and hold, continue climb-in-hold to 6400.

ATIS	CASCADE APP CON ★	MEDFORD TOWER ★	GND CON	UNICOM
127.25	124.3 379.9	119.4 (CTAF) L 257.8	121.8	122.95





CATEGORY	A	B	C	D
S-14	2680/60 1377 (1400-1¼)		2680-2½ 1377 (1400-2½)	
CIRCLING	2680-1¼ 1345 (1400-1¼)	2680-1½ 1345 (1400-1½)	2680-3 1345 (1400-3)	



CL Rwy 14-32 L
TDZ/CL Rwy 14 L
REIL Rwy 32 L
MIRL Rwy 9-27
HIRL Rwy 14-32 L

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC I-ONP	APP CRS	Rwy ldg	5398
111.5	158°	TDZE	151
		Apt Elev	160

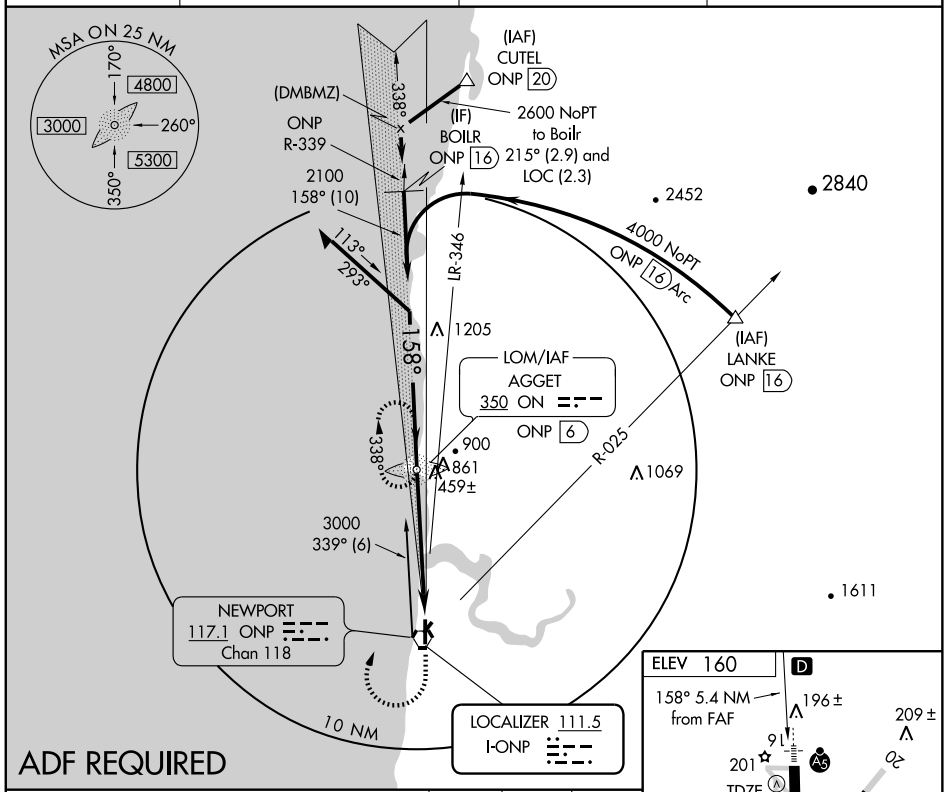
ILS or LOC RWY 16
NEWPORT MUNI (ONP)

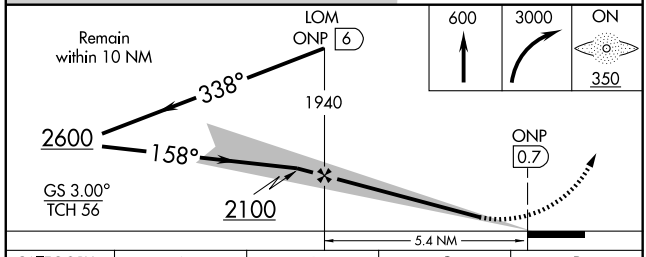
T
A NA

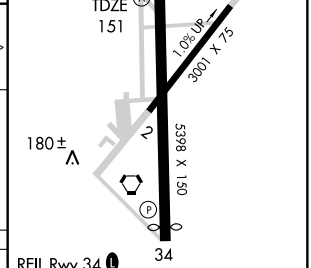
MALSR A5

MISSED APPROACH: Climb to 600 then climbing right turn to 3000 direct AGGET LOM/ONP 6 DME and hold.

AWOS-3	SEATTLE CENTER	MCMINNVILLE RADIO	UNICOM
133.9	125.8 291.7	122.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-ILS 16	351-¾ 200 (200-¾)			
S-LOC 16	720-¾ 569 (600-¾)		720-1½ 569 (600-1½)	720-1¾ 569 (600-1¾)
CIRCLING	880-1 720 (800-1)		880-2 720 (800-2)	960-2½ 800 (800-2½)

FAF to MAP 5.4 NM					
Knots	60	90	120	150	180
Min:Sec	5:24	3:36	2:42	2:10	1:48

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5398
158°	TDZE	151
	Apt Elev	160

RNAV (GPS) RWY 16
NEWPORT MUNI (ONP)

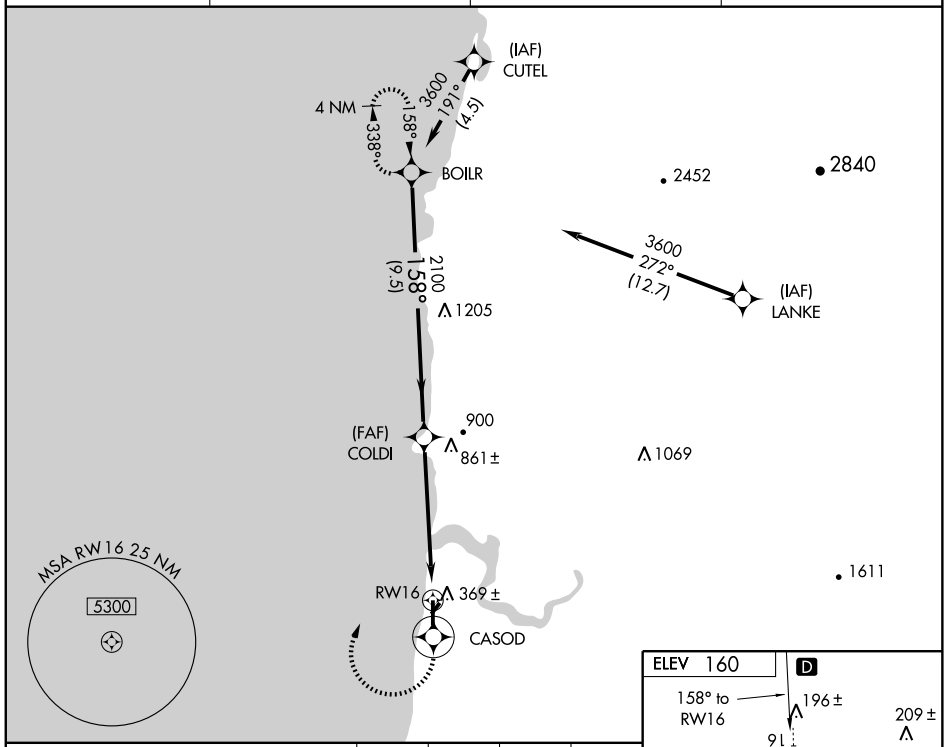
Inoperative table does not apply to LNAV/VNAV. GPS or RNP-0.3 required. DME/DME RNP-0.3 NA. Baro-VNAV NA below -15°C (5°F).

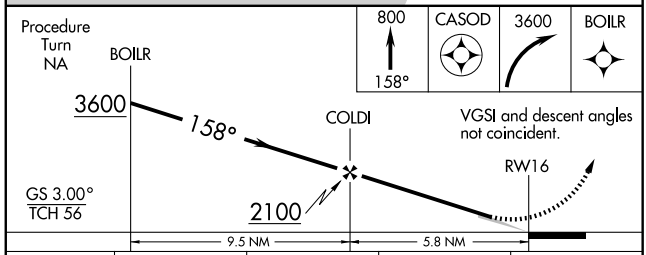
NA

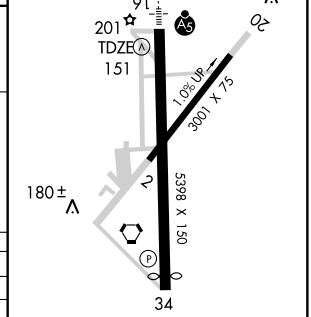
MALSR

MISSED APPROACH: Climb to 800 via 158° course to CASOD WP then climbing right to 3600 direct BOILR WP and hold.

AWOS-3	SEATTLE CENTER	MCMINNVILLE RADIO	UNICOM
133.9	125.8 291.7	122.5	122.8 (CTAF) L







REIL Rwy 34 L
MIRL Rwys 2-20 L
HIRL Rwys 16-34 L

CATEGORY	A	B	C	D
GLS PA DA	NA			
LNAV/VNAV DA	620-1½ 469 (500-1½)			
LNAV MDA	720-¾ 569 (600-¾)		720-1½ 569 (600-1½)	720-1¾ 569 (600-1¾)
CIRCLING	880-1½ 720 (800-1½)		880-2 720 (800-2)	960-2½ 800 (800-2½)

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5098
328°	TDZE	155
	Apt Elev	160

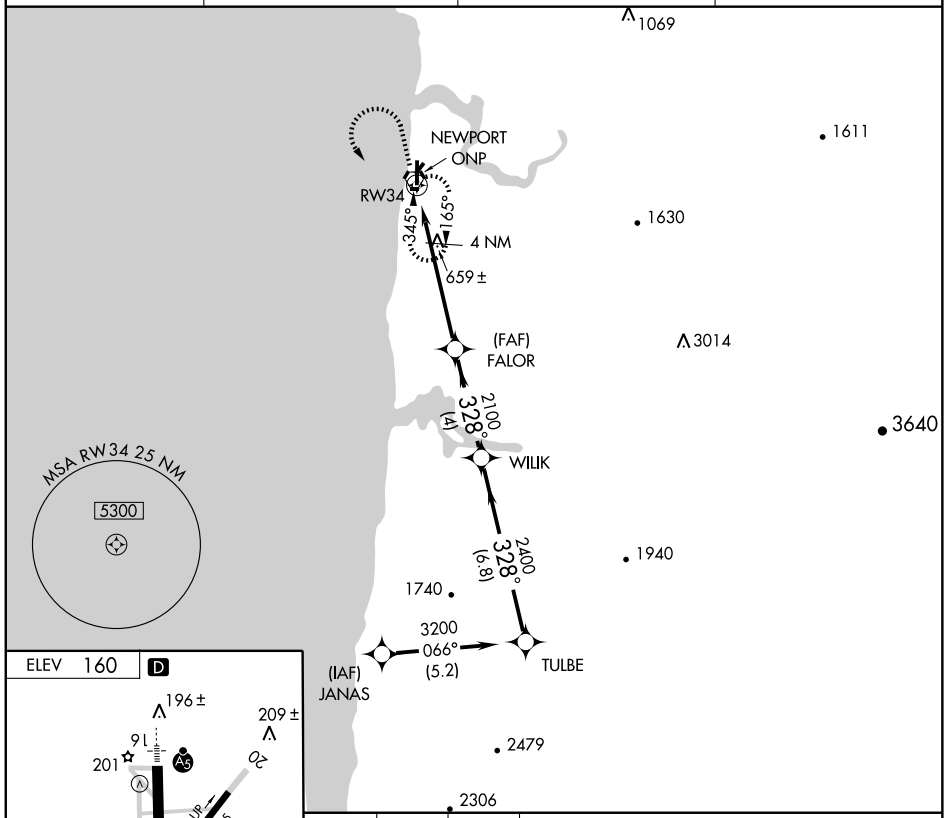
RNAV (GPS) RWY 34
NEWPORT MUNI (ONP)

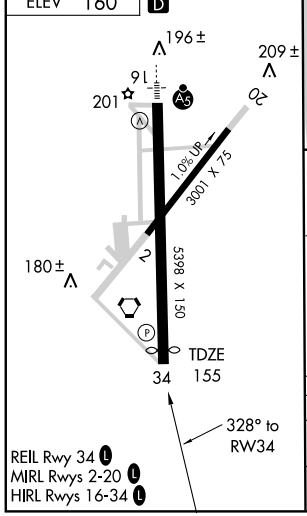
T
A NA

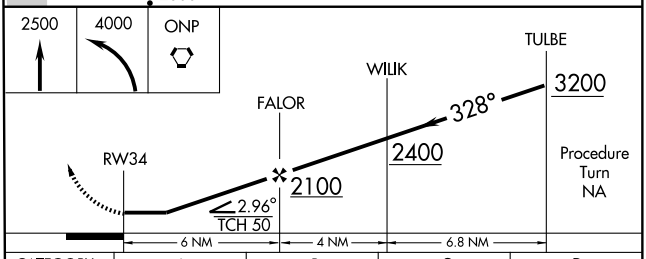
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.

MISSED APPROACH: Climb to 2500, then climbing left turn to 4000 direct ONP VORTAC and hold.

AWOS-3	SEATTLE CENTER	MCMINNVILLE RADIO	UNICOM
133.9	125.8 291.7	122.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	920-1 765 (800-1)	920-1¼ 765 (800-1¼)	920-2¼ 765 (800-2¼)	920-2½ 765 (800-2½)
CIRCLING	920-1 760 (800-1)	920-1¼ 760 (800-1¼)	920-2¼ 760 (800-2¼)	960-2½ 800 (800-2½)

NW-1, 03 JUN 2010 to 01 JUL 2010

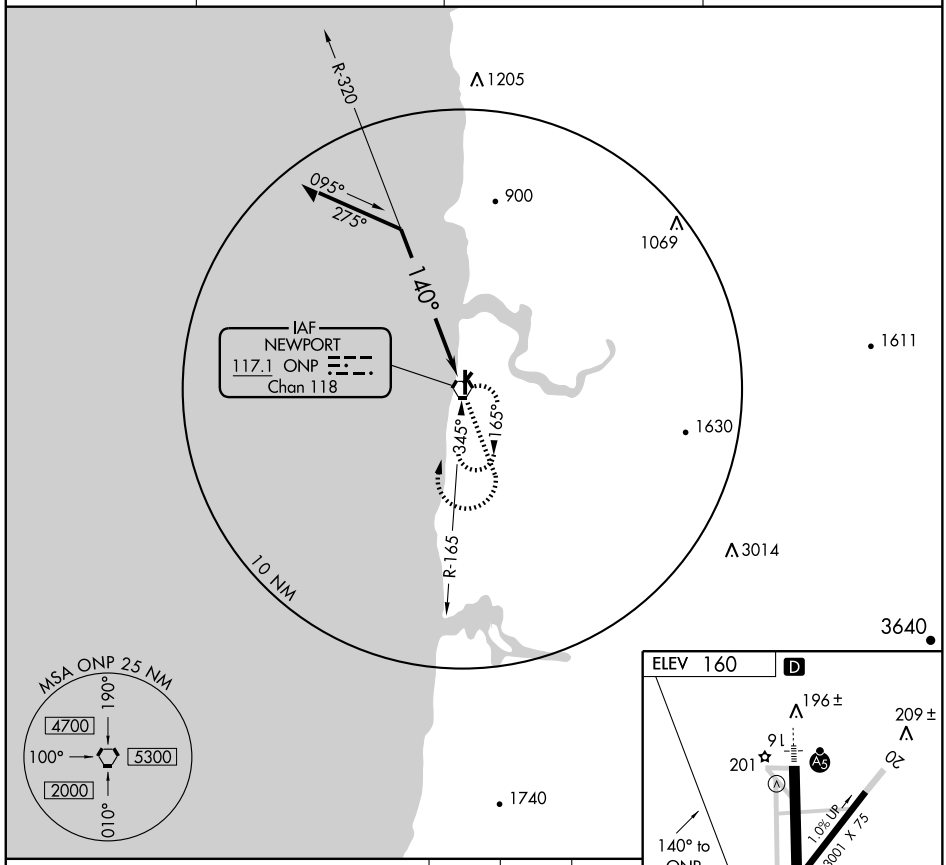
VORTAC ONP 117.1 Chan 118	APP CRS 140°	Rwy ldg N/A TDZE N/A Apt Elev 160

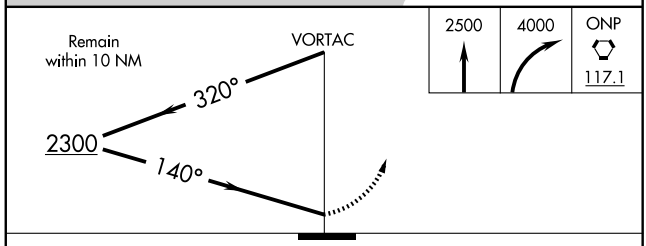
VOR-A
NEWPORT MUNI (ONP)

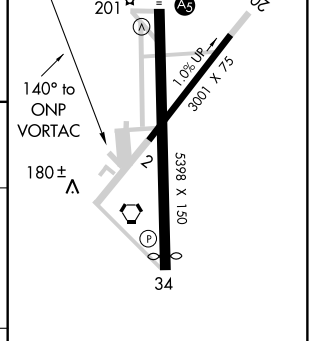
NA

MISSED APPROACH: Climb to 2500, then climbing right turn to 4000, direct ONP VORTAC and hold.

AWOS-3	SEATTLE CENTER	MCMINNVILLE RADIO	UNICOM
133.9	125.8 291.7	122.5	122.8 (CTAF) L







REIL Rwy 34 L
MIRL Rwys 2-20 L
HIRL Rwys 16-34 L

CATEGORY	A	B	C	D
CIRCLING	1160-1¼ 1000 (1000-1¼)	1160-1½ 1000 (1000-1½)	1160-3	1000 (1000-3)

NW-1. 03 JUN 2010 to 01 JUL 2010

VORTAC ONP 117.1 Chan 118	APP CRS 166°	Rwy ldg 5398 TDZE 151 Apt Elev 160

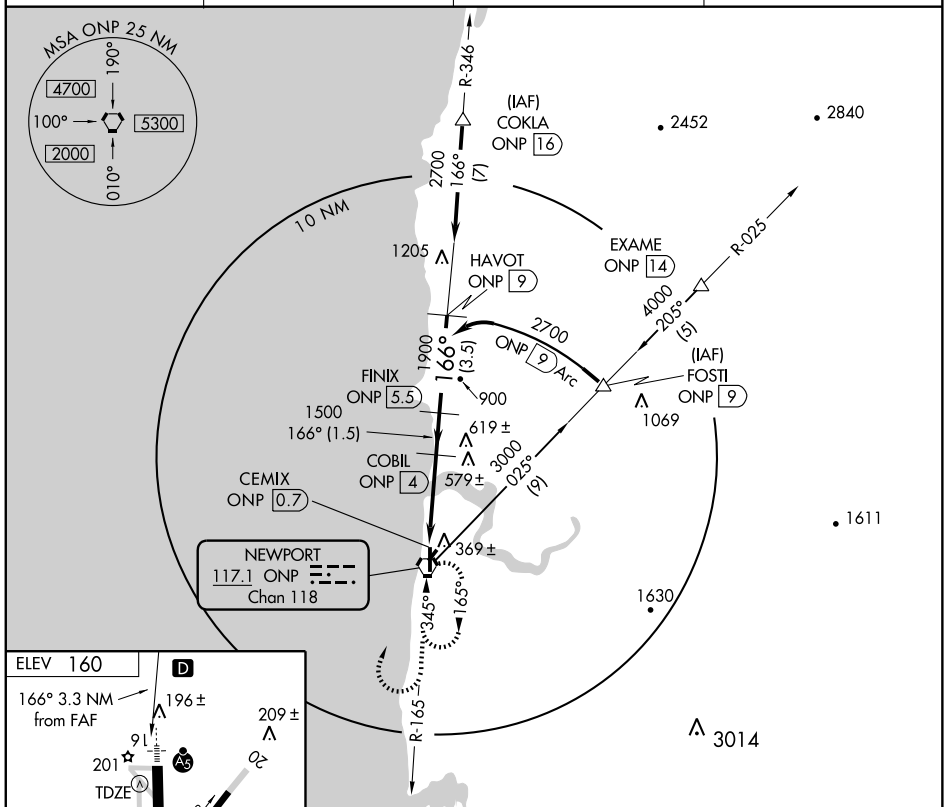
VOR/DME RWY 16
NEWPORT MUNI (ONP)

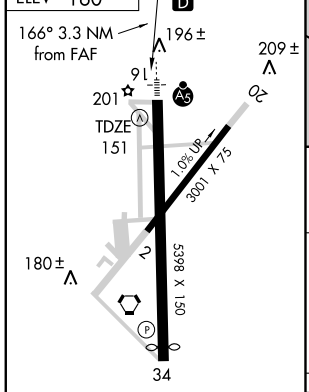
T A NA Inoperative table does not apply to MALSF Rwy 16.

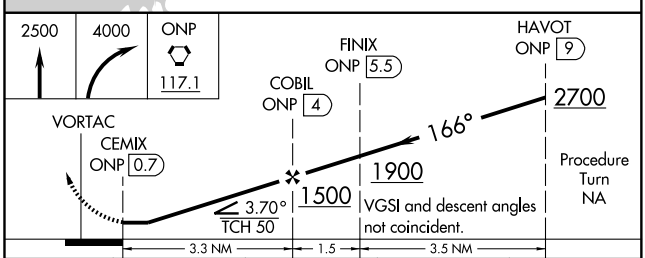
MALSR

MISSED APPROACH: Climb to 2500, then climbing right turn to 4000, direct ONP VORTAC and hold.

AWOS-3	SEATTLE CENTER	MCMINNVILLE RADIO	UNICOM
133.9	125.8 291.7	122.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-16	640-1 489 (500-1)		640-1¼ 489 (500-1¼)	NA
CIRCLING	880-1 720 (800-1)		880-2 720 (800-2)	960-2½ 800 (800-2½)

REIL Rwy 34 L
MIRL Rwys 2-20 L
HIRL Rwys 16-34 L

NW-1. 03 JUN 2010 to 01 JUL 2010

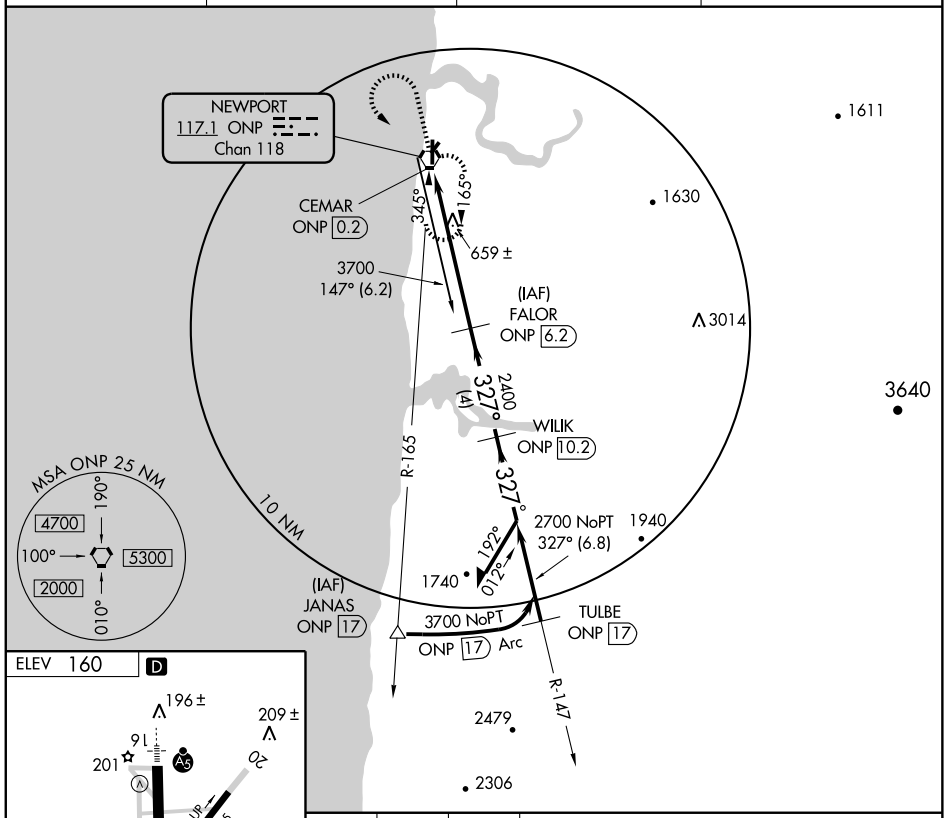
VOR/DME RWY 34
NEWPORT MUNI (ONP)

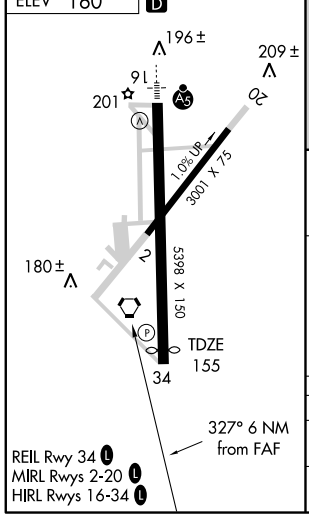
VORTAC ONP 117.1 Chan 118	APP CRS 327°	Rwy ldg 5098 TDZE 155 Apt Elev 160

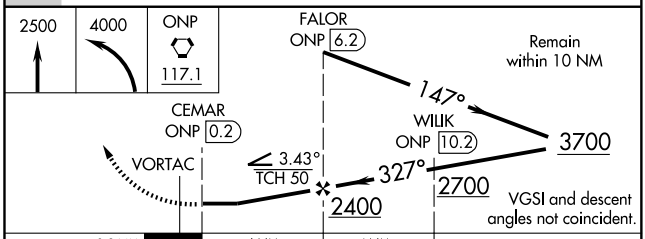
NA

MISSED APPROACH: Climb to 2500 then climbing left turn to 4000 direct ONP VORTAC and hold.

AWOS-3	SEATTLE CENTER	MCMINNVILLE RADIO	UNICOM
133.9	125.8 291.7	122.5	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-34	920-1 765 (800-1)	920-1¼ 765 (800-1¼)	920-2¼ 765 (800-2¼)	920-2½ 765 (800-2½)
CIRCLING	920-1 760 (800-1)	920-1¼ 760 (800-1¼)	920-2¼ 760 (800-2¼)	960-2½ 800 (800-2½)

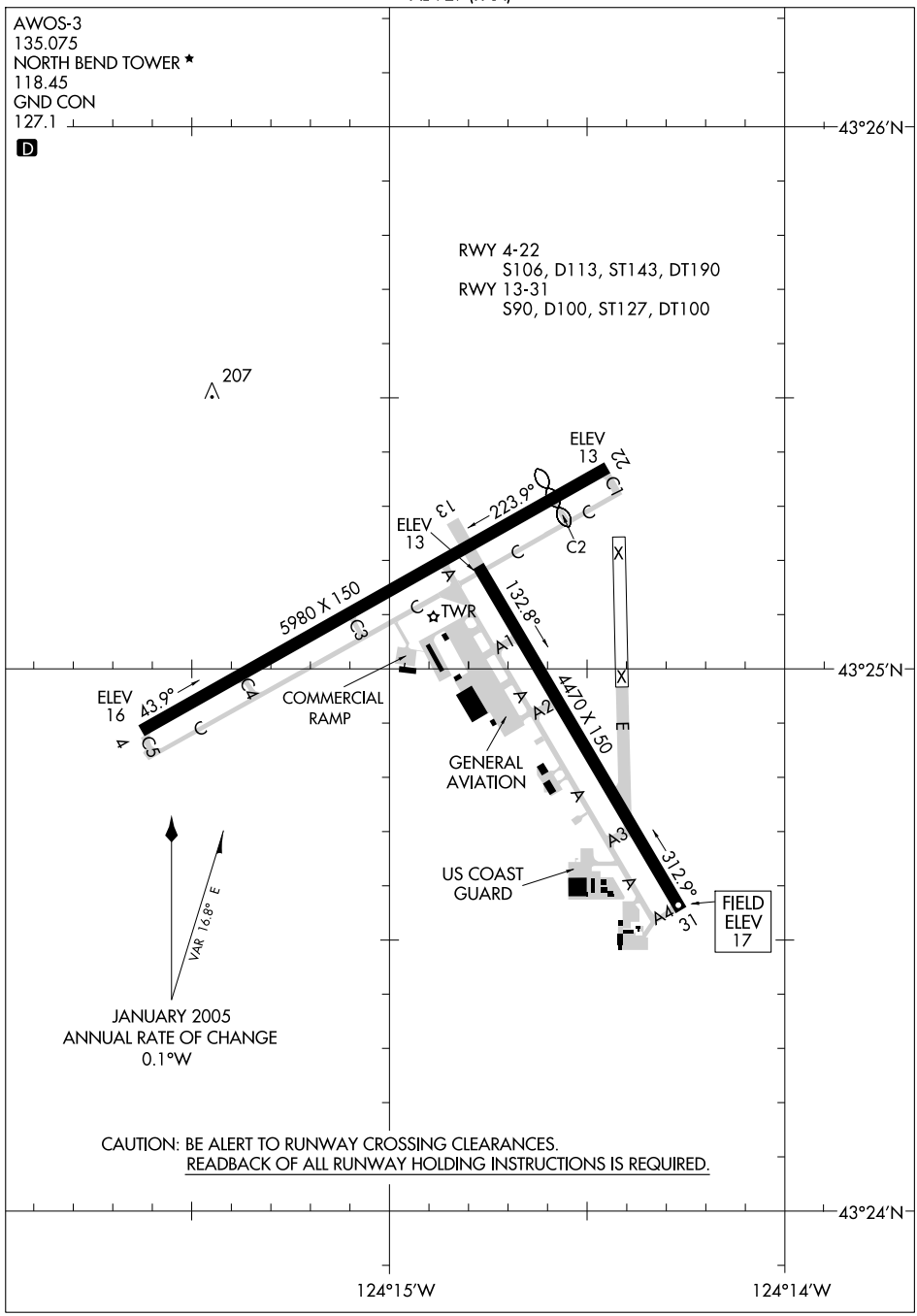
NW-1, 03 JUN 2010 to 01 JUL 2010

09351

AIRPORT DIAGRAM

AL-929 (FAA)

NORTH BEND/SOUTHWEST OREGON RGNL (OTH)
NORTH BEND, OREGON



NW-1. 03 JUN 2010 to 01 JUL 2010

LOC I-OTH	APP CRS	Rwy ldg	5321
108.5	043°	TDZE	16
		Apt Elev	17

COPTER ILS or LOC RWY 4

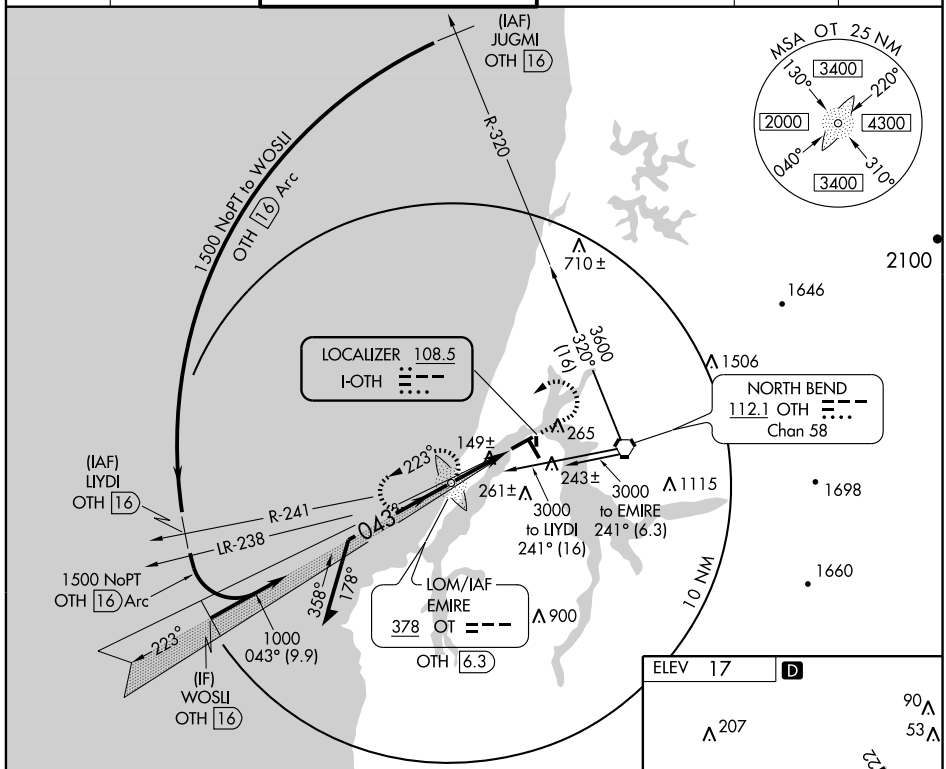
NORTH BEND/ SOUTHWEST OREGON RGNL (OTH)

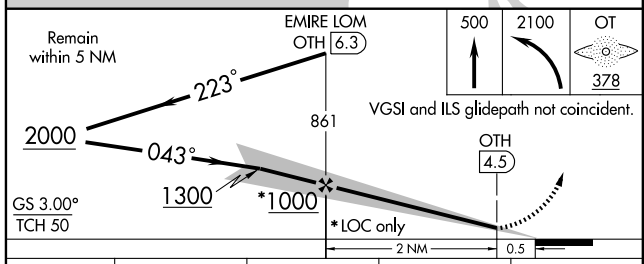
ADF required.
If local altimeter setting not received, procedure NA.
US Coast Guard use only.

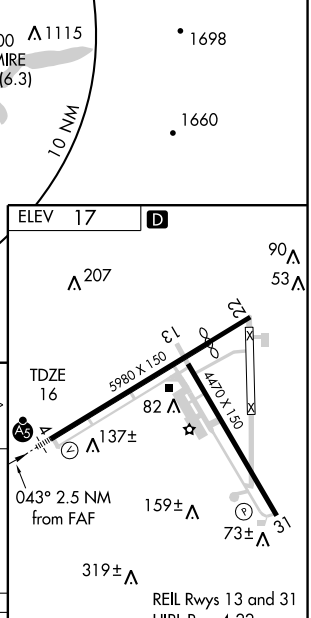
MALSR

MISSED APPROACH: Climb to 500, then climbing left turn to 2100 direct EMIRE LOM and hold, continue climb-in-hold to 2100.

AWOS-3	SEATTLE CENTER	SOUTHWEST REGIONAL TOWER ★	MC MINNVILLE RADIO	GND CON	UNICOM
135.075	121.4 254.35	118.45 (CTAF) L	122.4 255.4	127.1	122.7







CATEGORY	COPTER	B	C	D
H-ILS 4	216-½ 200 (200-½)	NA		
H-LOC 4	400-½ 384 (400-½)	NA		

FAF to MAP 2 NM					
Knots	45	60	75	90	105
Min:Sec	2:40	2:00	1:36	1:20	1:09

LOC I-OTH	APP CRS	Rwy ldg	5321
108.5	043°	TDZE	16
		Apt Elev	17

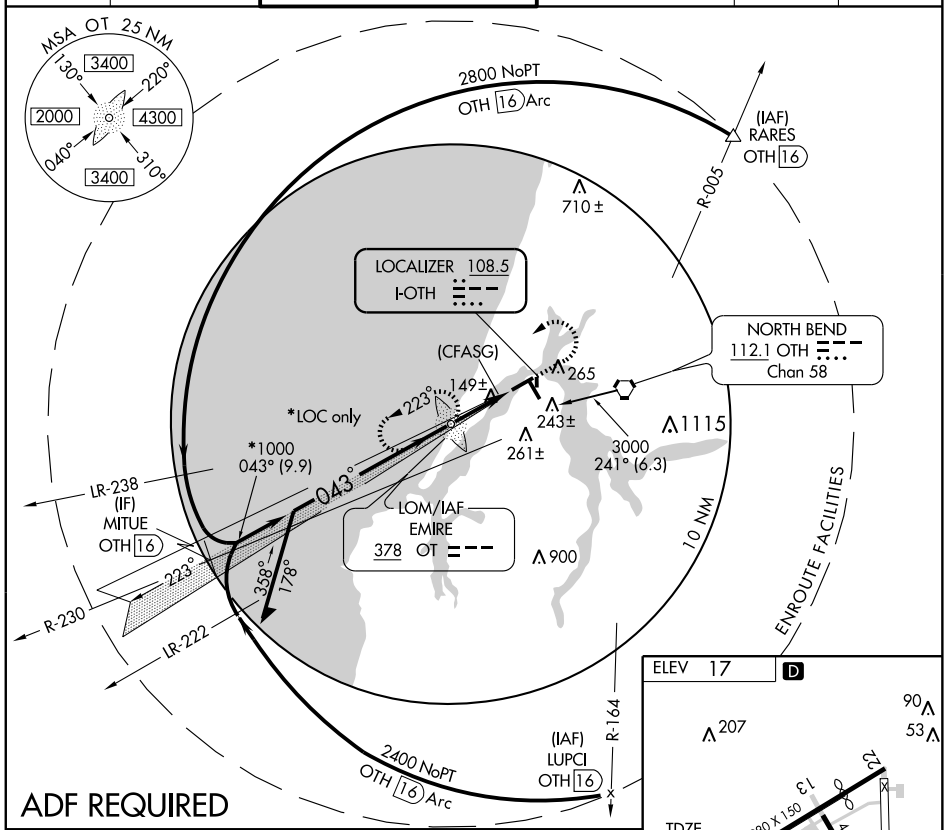
ILS or LOC RWY 4

NORTH BEND/ SOUTHWEST OREGON RGNL (OTH)

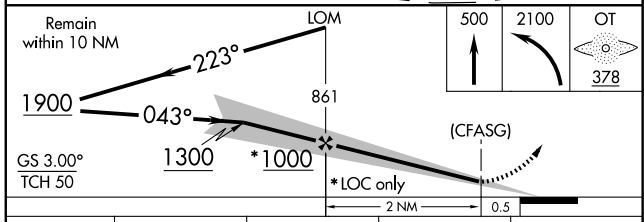
MALSR

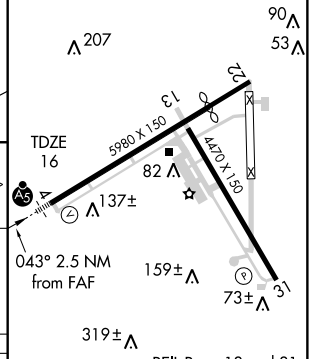
MISSED APPROACH: Climb to 500, then climbing left turn to 2100 direct EMIRE LOM and hold, continue climb-in-hold to 2100.

AWOS-3	SEATTLE CENTER	SOUTHWEST REGIONAL TOWER ★	MC MINNVILLE RADIO	GND CON	UNICOM
135.075	121.4 254.35	118.45 (CTAF) L	122.4 255.4	127.1	122.7



ADF REQUIRED





REIL Rwys 13 and 31
HIRL Rwy 4-22
MIRL Rwy 13-31

CATEGORY	A	B	C	D
S-ILS 4	216-¾ 200 (200-¾)			
S-LOC 4	400-1 384 (400-1)			400-1¼ 384 (400-1¼)
CIRCLING	740-1 723 (800-1)		820-2¼ 803 (900-2¼)	1000-3 983 (1000-3)

FAF to MAP 2 NM					
Knots	60	90	120	150	180
Min:Sec	2:00	1:20	1:00	0:48	0:40

NW-1, 03 JUN 2010 to 01 JUL 2010

LOM OT	APP CRS	Rwy ldg	5321
378	043°	TDZE	16
		Apt Elev	17

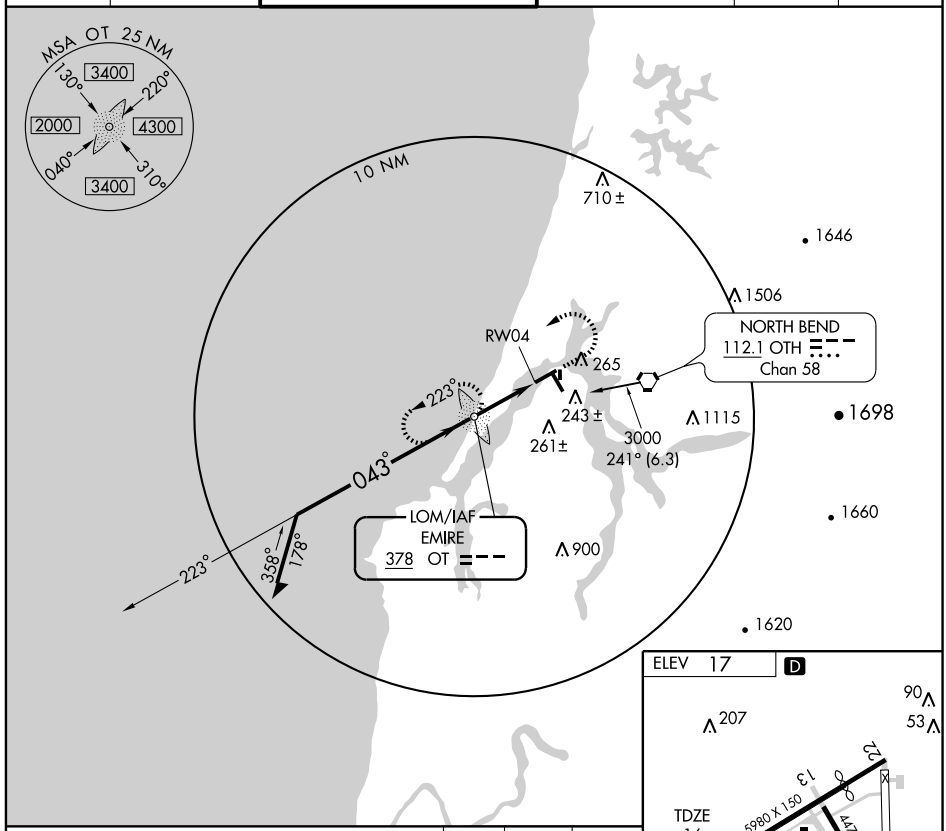
NDB or GPS RWY 4

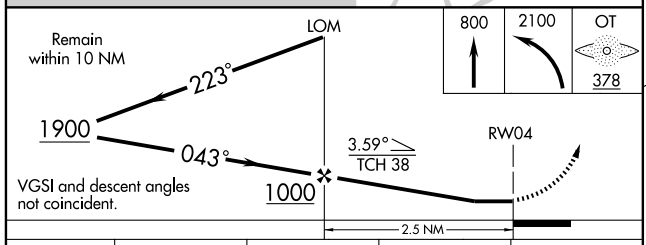
NORTH BEND/ SOUTHWEST OREGON RGNL (OTH)

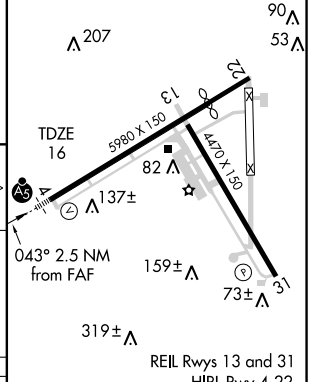
MALSR

MISSED APPROACH: Climb to 800, then climbing left turn to 2100 direct EMIRE (OT) LOM and hold, continue climb-in-hold to 2100.

AWOS-3	SEATTLE CENTER	SOUTHWEST REGIONAL TOWER ★	MC MINNVILLE RADIO	GND CON	UNICOM
135.075	121.4 254.35	118.45 (CTAF) L	122.4 255.4	127.1	122.7







REIL Rwys 13 and 31
HIRL Rwy 4-22
MIRL Rwy 13-31

CATEGORY	A	B	C	D
S-4	660-1 644 (700-1)		660-1¾ 644 (700-1¾)	660-2 644 (700-2)
CIRCLING	740-1 723 (800-1)	740-1¼ 723 (800-1¼)	820-2¼ 803 (900-2¼)	1000-3 983 (1000-3)

FAF to MAP 2.5 NM					
Knots	60	90	120	150	180
Min:Sec	2:30	1:40	1:15	1:00	0:50

NW-1, 03 JUN 2010 to 01 JUL 2010

NORTH BEND FIVE DEPARTURE

SEATTLE CENTER
121.4 239.0
MC MINNVILLE RADIO
122.4 255.4

GAMMA
N43°44.89′
W124°08.28′
L-1

RARES
N43°39.62′
W124°01.37′
L-1

SCOTY
N43°35.74′
W123°55.81′
L-1

NORTH BEND
112.1 OTH
Chan 58
N43°24.93′-W124°10.11′

4000
346°
(20)

V287-536

V27-182

4000
005°
(16)

4200
026°
(15)

V121

R-295

220°

R-250

250°

280°

1300

V287

4000
117°
(12)

ROSEBURG
108.2 RBG
Chan 19

DEROY
N43°16.43′
W123°58.49′
L-1

V27

4000
164°
(20)

LEDGE
N43°04.94′
W124°11.01′
L-1

NOTE: DME required for DEROY/LEDGE transitions.

TAKE-OFF MINIMUMS

Rwy 4: Standard with minimum climb of 475′ per NM to 1200 or 900-3 with minimum climb of 300′ per NM to 900.

Rwy 13: 400-1 with minimum climb of 330′ per NM to 1200.

Rwy 22: Standard.

Rwy 31: 300-1¾ or Standard with minimum climb of 280′ per NM to 300.

(NOTES CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 4, 31: Climbing left turn heading 220° and OTH R-250 thence. . . .

TAKE-OFF RUNWAYS 13, 22: Climbing right turn heading 280° and OTH R-250 thence. . . .

. . . .continue climbing via OTH R-250 to 1300 then right turn direct OTH VORTAC, thence via assigned transition.

DEROY TRANSITION (OTH5.DEROY): From over OTH VORTAC via OTH R-117 to DEROY DME.

GAMMA TRANSITION (OTH5.GAMMA): From over OTH VORTAC via OTH R-346 to GAMMA INT.

LEDGE TRANSITION (OTH5.LEDGE): From over OTH VORTAC via OTH R-164 to LEDGE DME.

RARES TRANSITION (OTH5.RARES): From over OTH VORTAC via OTH R-005 to RARES INT.

SCOTY TRANSITION (OTH5.SCOTY): From over OTH VORTAC via OTH R-026 to SCOTY INT.

TAKE-OFF OBSTACLE NOTES

Rwy 4: OL on ant. 383′ from DER, 207′ right of centerline, 22′ AGL/35′ MSL.
Ship 1000′ from DER, on centerline, up to 140′ MSL.
OLs on bridge beginning 1886′ from DER, 621′ left of centerline, up to 93′ AGL/93′ MSL.
Bridge beginning 4728′ from DER, 580′ right of centerline, 265′ AGL/265′ MSL.
OLs on bridge beginning 4741′ from DER, 948′ right of centerline, up to 268′ AGL/268′ MSL.
Transmission tower, 5031′ from DER, 677′ right of centerline, 213′ AGL/216′ MSL.
Trees beginning 1.2 NM from DER, 409′ left of centerline, up to 150′ AGL/549′ MSL.
Trees beginning 1.5 NM from DER, 1396′ right of centerline, up to 150′ AGL/629′ MSL.
Bldgs beginning 1.7 NM from DER, 776′ left of centerline, up to 73′ AGL/393′ MSL.

Rwy 13: Bushes beginning 38′ from DER, 175′ left of centerline, up to 16′ AGL/33′ MSL.
Vehicle on road, 193′ from DER, 237′ left of centerline, up to 15′ AGL/30′ MSL.
Bush 193′ from DER, 145′ right of centerline, up to 20′ AGL/37′ MSL.
Trees beginning 346′ from DER, 17′ right of centerline, up to 150′ AGL/349′ MSL.
Bldgs beginning 504′ from DER, 243′ right of centerline, up to 86′ AGL/106′ MSL.
Trees beginning 628′ from DER, 6′ left of centerline, up to 150′ AGL/298′ MSL.
Ant. on bldg 712′ from DER, 554′ right of centerline, up to 51′ AGL/68′ MSL.
Poles beginning 880′ from DER, 13′ right of centerline, up to 136′ AGL/236′ MSL.
Spire 3467′ from DER, 1122′ left of centerline, 55′ AGL/243′ MSL.
Pole 1 NM from DER, 159′ left of centerline, up to 121′ AGL/221′ MSL.

Rwy 22: Ship 4050′ from DER, on centerline, up to 140′ MSL.

Rwy 31: Ship 1000′ from DER, on centerline, up to 140′ MSL.
Trees beginning 5037′ from DER, 15′ left of centerline, up to 92′ AGL/232′ MSL.
Trees beginning 5985′ from DER, 1419′ right of centerline, up to 108′ AGL/188′ MSL.

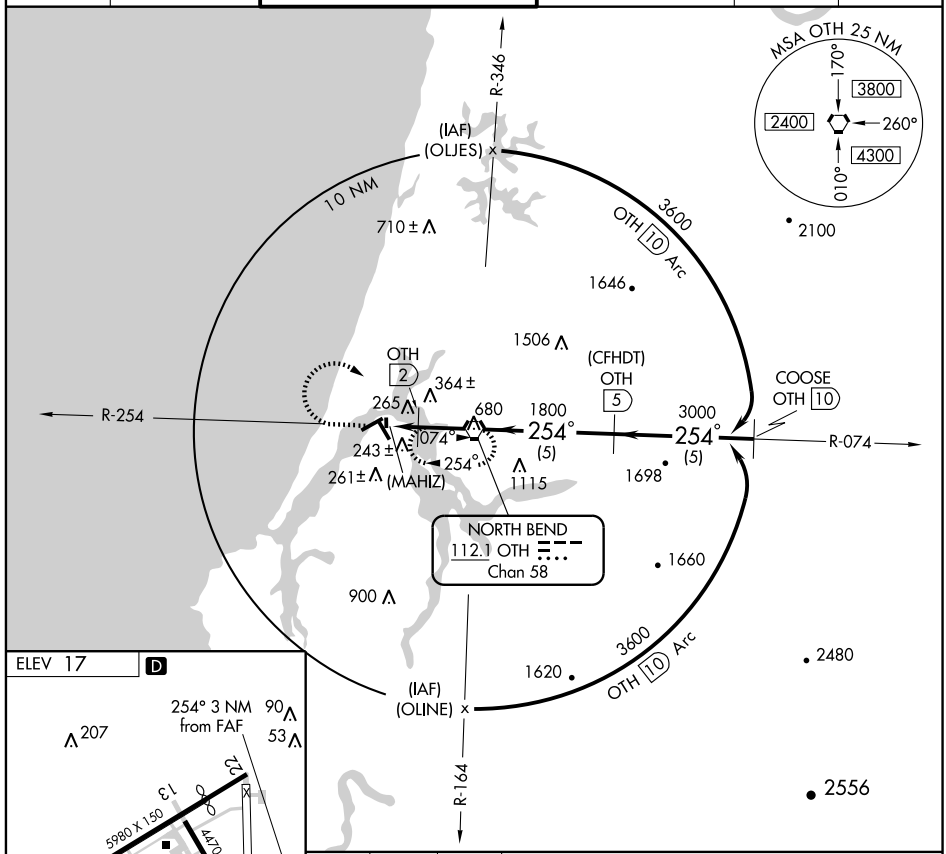
VORTAC OTH	APP CRS	Rwy ldg	N/A
112.1	254°	TDZE	N/A
Chan 58		Apt Elev	17

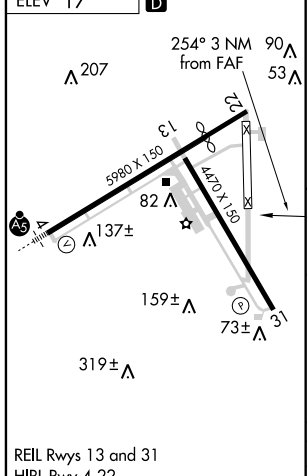
VOR/DME or GPS-B

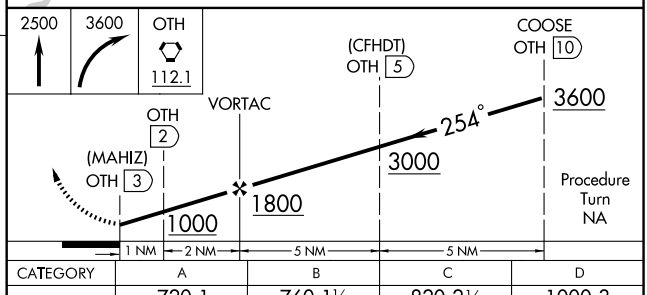
NORTH BEND/ SOUTHWEST OREGON RGNL (OTH)

MISSED APPROACH: Climb to 2500, then climbing right turn to 3600 direct OTH VORTAC and hold.

AWOS-3	SEATTLE CENTER	SOUTHWEST REGIONAL TOWER ★	MC MINNVILLE RADIO	GND CON	UNICOM
135.075	121.4 254.35	118.45 (CTAF) L	122.4 255.4	127.1	122.7







REIL Rwys 13 and 31
HIRL Rwy 4-22
MIRL Rwy 13-31

CATEGORY	A	B	C	D
CIRCLING	720-1 706 (800-1)	760-1¼ 746 (800-1¼)	820-2¼ 806 (900-2¼)	1000-3 986 (1000-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC OTH	APP CRS	Rwy ldg	5321
112.1	070°	TDZE	12
Chan 58		Apt Elev	17

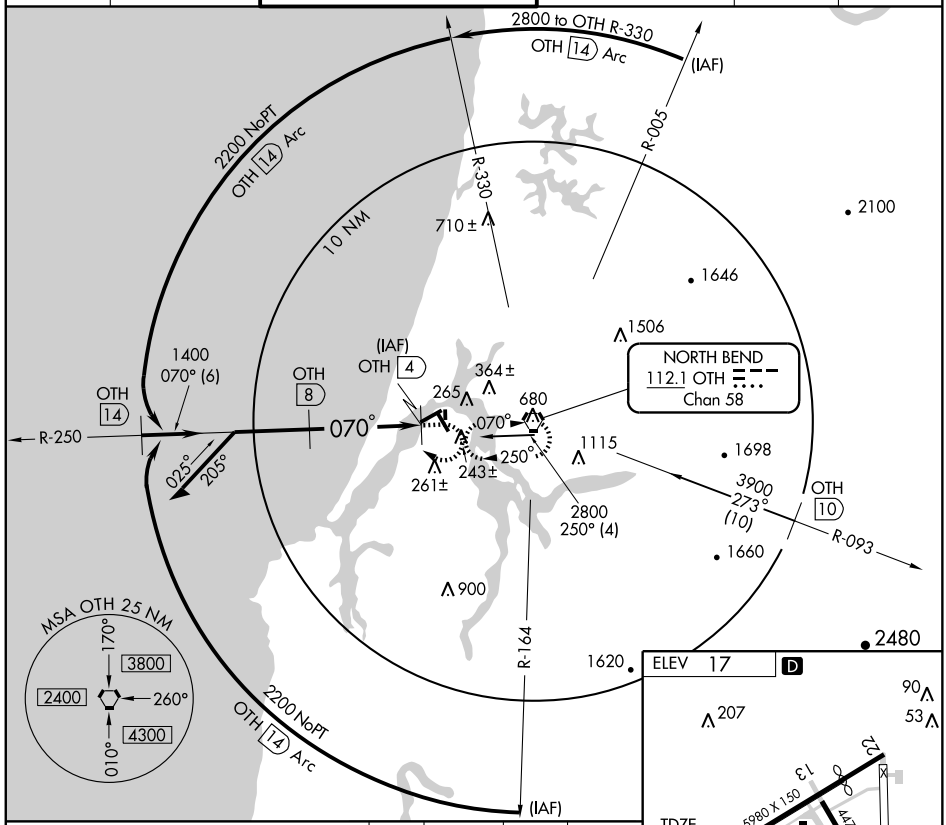
VOR/DME RWY 4

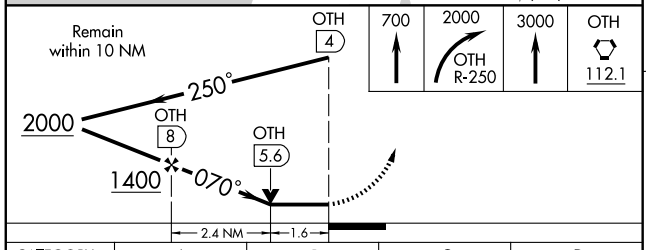
NORTH BEND/SOUTHWEST OREGON RGNL (OTH)

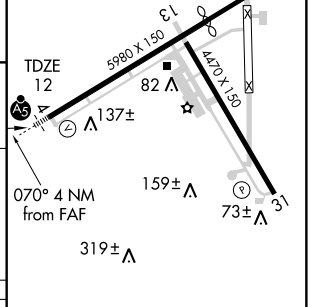
MALSR

MISSED APPROACH: Climb to 700, then climbing right turn to 2000 via OTH R-250; then climb to 3000 direct OTH VORTAC and hold.

AWOS-3	SEATTLE CENTER	SOUTHWEST REGIONAL TOWER ★	MC MINNVILLE RADIO	GND CON	UNICOM
135.075	121.4 254.35	118.45 (CTAF) L	122.4 255.4	127.1	122.7







CATEGORY	A	B	C	D
S-4	540-1 528 (600-1)		540-1½ 528 (600-1½)	540-1¾ 528 (600-1¾)
CIRCLING	720-1 706 (800-1)	760-1¼ 746 (800-1¼)	820-2¼ 806 (900-2¼)	1000-3 986 (1000-3)

REIL Rwys 13 and 31
HIRL Rwy 4-22
MIRL Rwy 13-31

NW-1, 03 JUN 2010 to 01 JUL 2010

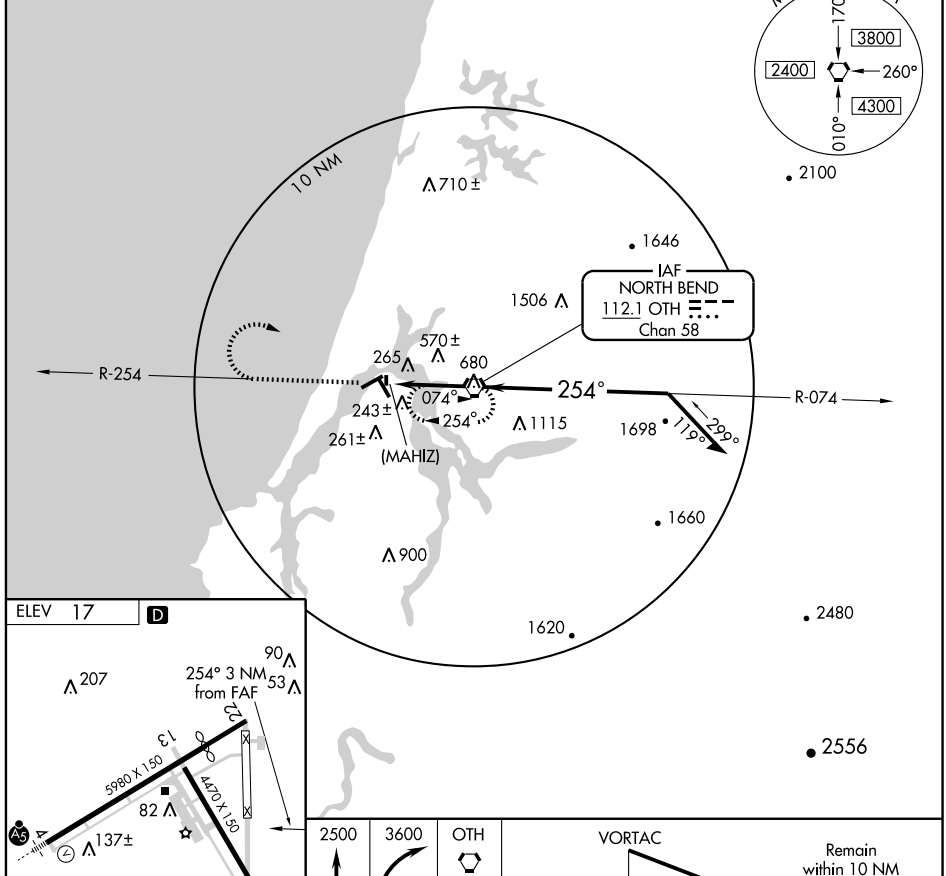
VORTAC OTH	APP CRS	Rwy ldg	N/A
112.1	254°	TDZE	N/A
Chan 58		Apt Elev	17

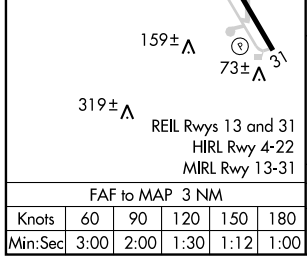
VOR or GPS-A

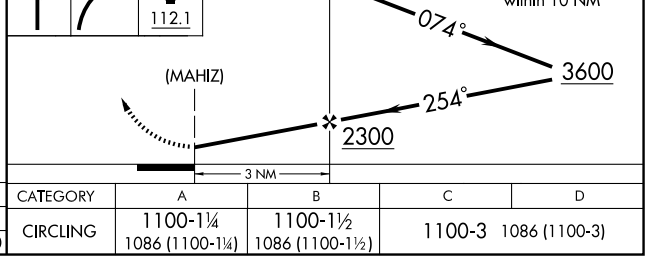
NORTH BEND/ SOUTHWEST OREGON RGNL (OTH)

MISSED APPROACH: Climb to 2500, then climbing right turn to 3600 direct OTH VORTAC and hold.

AWOS-3	SEATTLE CENTER	SOUTHWEST REGIONAL TOWER ★	MC MINNVILLE RADIO	GND CON	UNICOM
135.075	121.4 254.35	118.45 (CTAF) L	122.4 255.4	127.1	122.7







FAF to MAP 3 NM					
Knots	60	90	120	150	180
Min:Sec	3:00	2:00	1:30	1:12	1:00

CATEGORY	A	B	C	D
CIRCLING	1100-1¼ 1086 (1100-1¼)	1100-1½ 1086 (1100-1½)	1100-3 1086 (1100-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

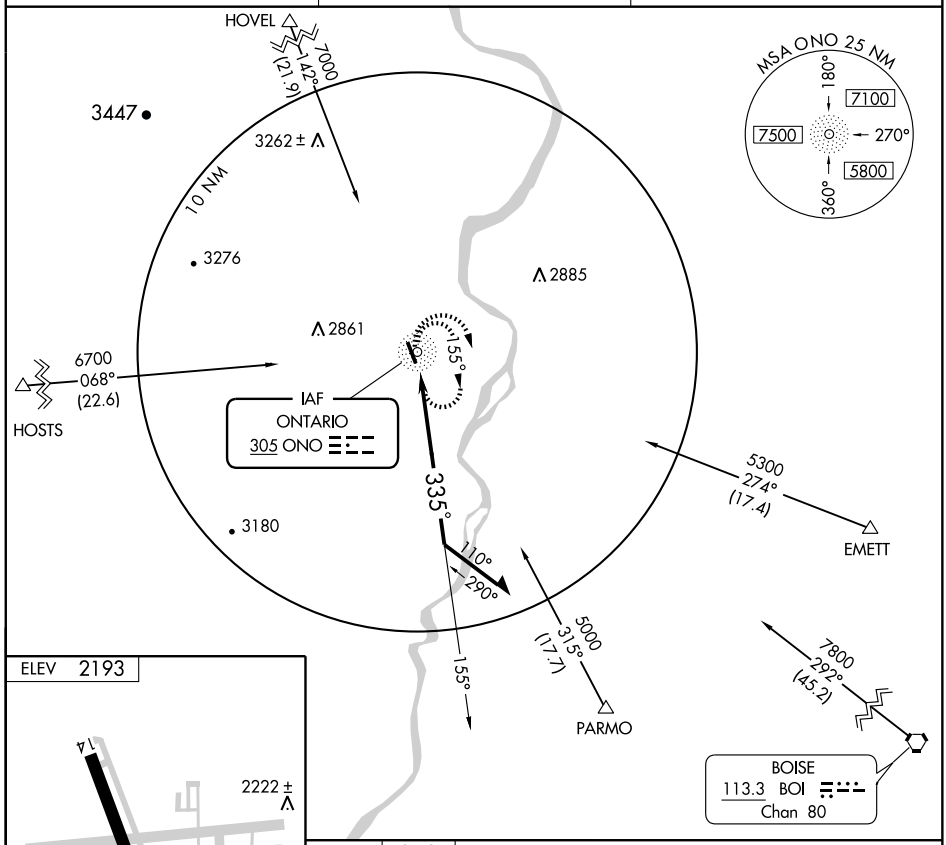
NDB ONO 305	APP CRS 335°	Rwy ldg 5011 TDZE 2193 Apt Elev 2193

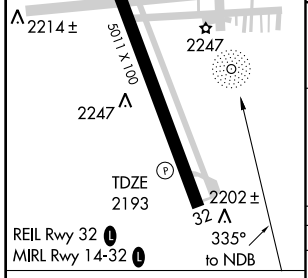
NDB RWY 32
ONTARIO MUNI (ONO)

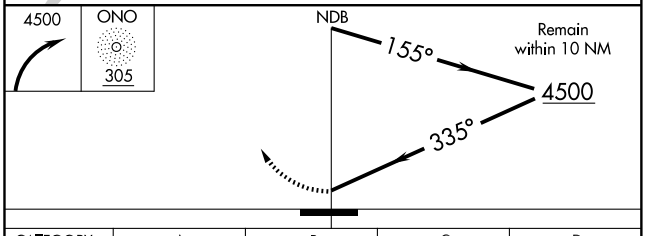
Visibility reduction by helicopters NA.
When local altimeter setting not received, use Caldwell altimeter setting and increase MDA 100 feet.

MISSED APPROACH: Climbing right turn to 4500 in ONO NDB holding pattern.

ASOS	SALT LAKE CENTER	UNICOM
135.275	128.05 387.15	122.8 (CTAF) L







Knots	60	90	120	150	180
Min:Sec					

CATEGORY	A	B	C	D
S-32	3160-1¼ 967 (1000-1¼)	3160-1½ 967 (1000-1½)	3160-3 967 (1000-3)	
CIRCLING	3160-1¼ 967 (1000-1¼)	3160-1½ 967 (1000-1½)	3160-3 967 (1000-3)	

NW-1, 03 JUN 2010 to 01 JUL 2010

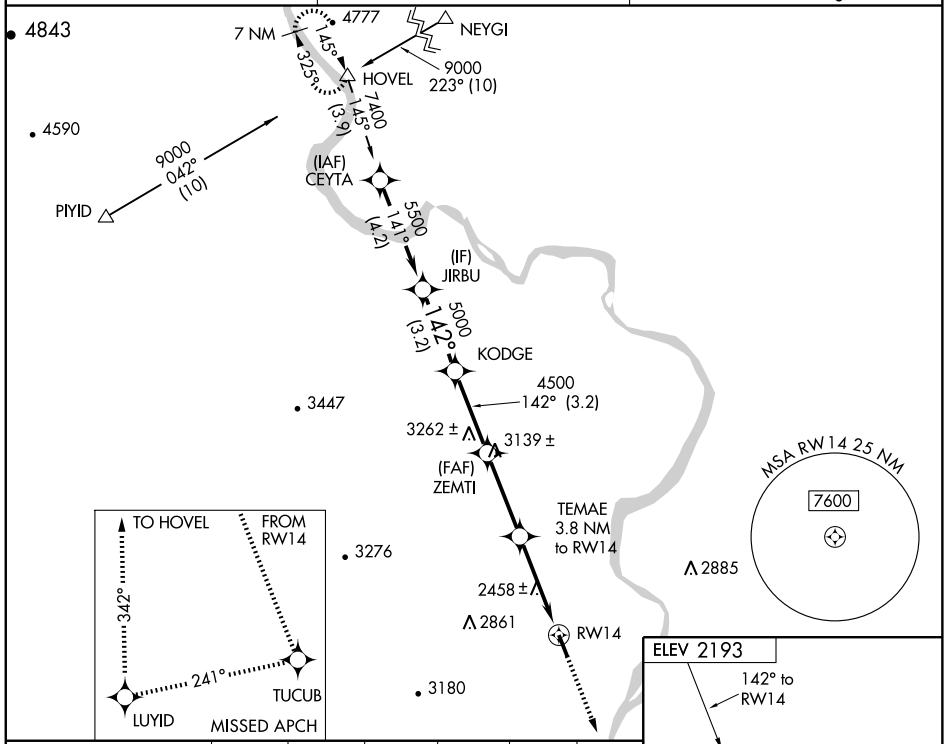
WAAS CH 78207 W14A	APP CRS 142°	Rwy ldg 5011 TDZE 2193 Apt Elev 2193

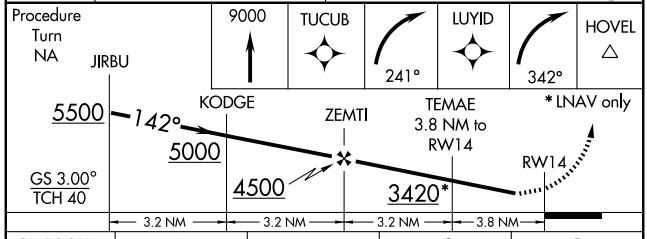
RNAV (GPS) RWY 14
ONTARIO MUNI (ONO)

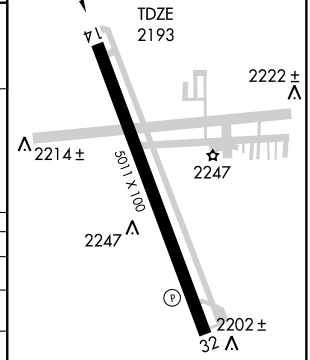
Baro-VNAV NA when using Caldwell altimeter setting. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 45°C (113°F). DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA. When local altimeter setting not received, use Caldwell altimeter setting and increase DA/MDA 100 feet, and increase LPV visibility ¼ mile all Cats, LNAV/VNAV visibility ½ mile all Cats, LNAV Cat C and D ¼ mile, Circling Cat C ¼ mile.

MISSED APPROACH: Climb to 9000 direct TUCUB and right turn via 241° track to LUYID and right turn via 342° track to HOVEL and hold.

ASOS	SALT LAKE CENTER	UNICOM
135.275	128.05 387.15	122.8 (CTAF) L







CATEGORY	A	B	C	D
LPV DA	2744-2 551 (600-2)			
LNAV/VNAV DA	2781-2 588 (600-2)			
LNAV MDA	2720-1 527 (600-1)		2720-1½ 527 (600-1½)	2720-1¾ 527 (600-1¾)
CIRCLING	2720-1 527 (600-1)	2760-1 567 (600-1)	2760-1½ 567 (600-1½)	2760-2 567 (600-2)

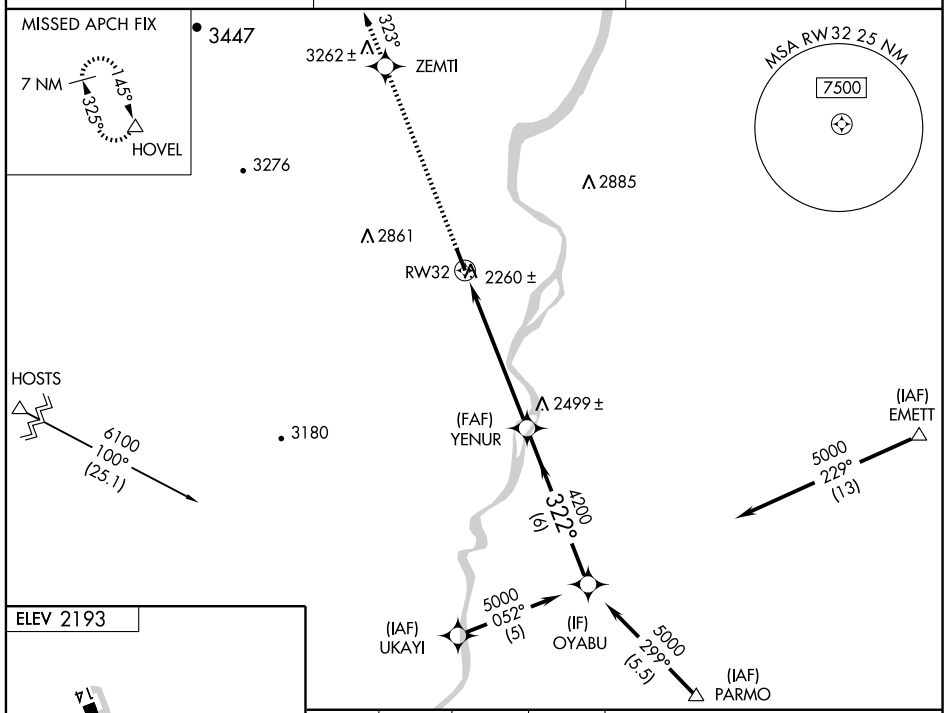
WAAS CH 87007 W32A	APP CRS 322°	Rwy ldg 5011 TDZE 2193 Apt Elev 2193

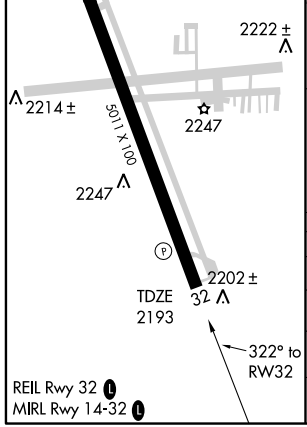
RNAV (GPS) RWY 32
ONTARIO MUNI (ONO)

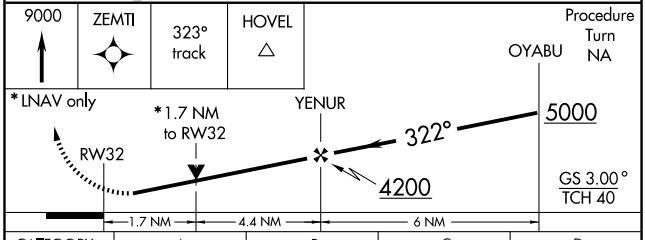
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -19°C (-2°F) or above 44°C (111°F). Baro-VNAV and VDP NA when using Caldwell altimeter setting. DME/DME RNP -0.3 NA. Visibility reduction by helicopters NA.
When local altimeter setting not received, use Caldwell altimeter setting and increase DA/MDA 100 feet, and increase LPV and LNAV/VNAV visibility ¼ mile all Cats, LNAV Cat C and D and Circling Cat C visibility ¼ mile.

MISSED APPROACH: Climb to 9000 direct ZEMTI and via 323° track to HOVEL and hold, continue climb-in-hold to 9000.

ASOS	SALT LAKE CENTER	UNICOM
135.275	128.05 387.15	122.8 (CTAF) L



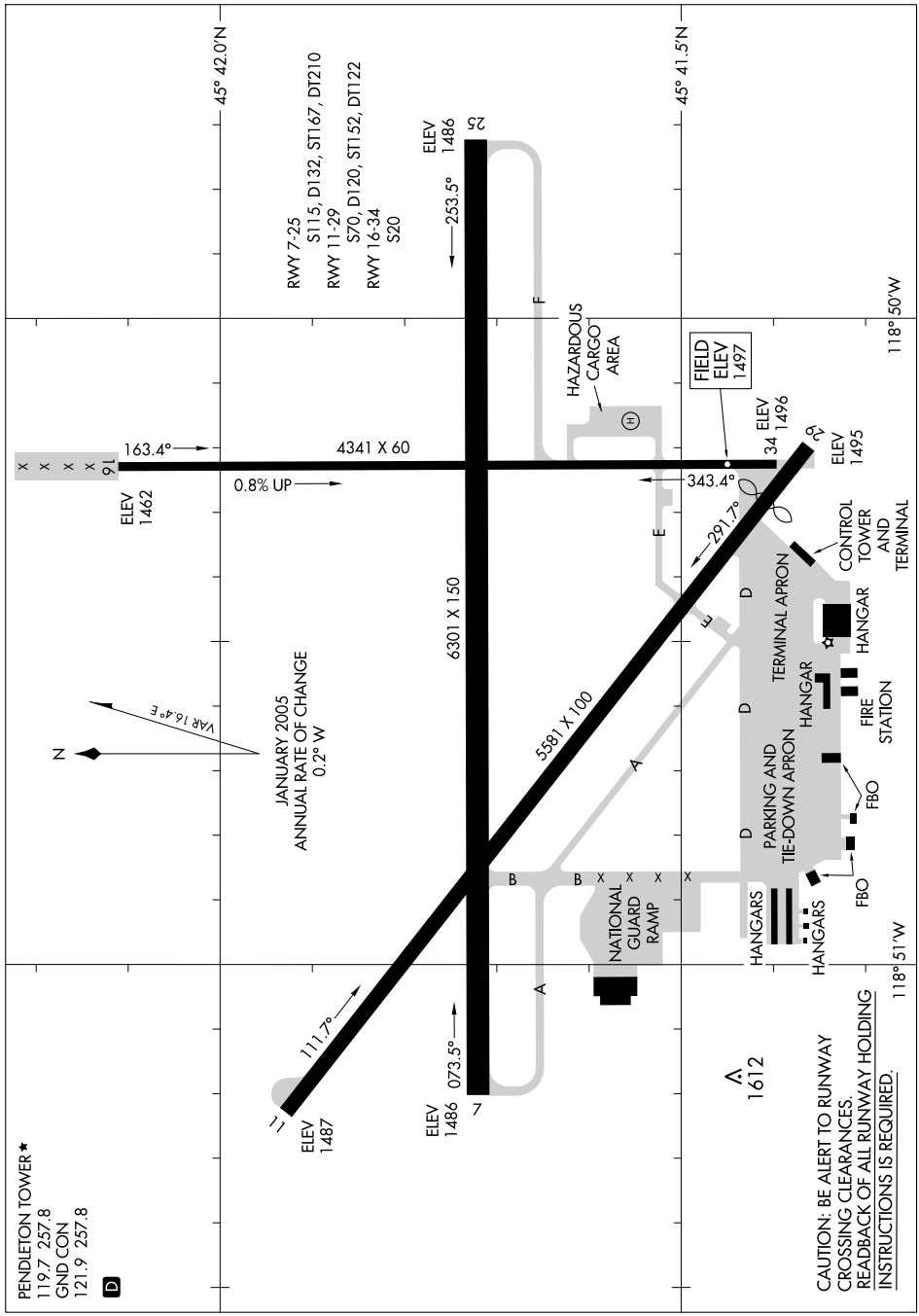




CATEGORY	A	B	C	D
LPV DA	2443-1		250 (300-1)	
LNAV/VNAV DA	2510-1¼		317 (400-1¼)	
LNAV MDA	2760-1	567 (600-1)	2760-1½ 567 (600-1½)	2760-1¾ 567 (600-1¾)
CIRCLING	2760-1	567 (600-1)	2760-1½ 567 (600-1½)	2760-2 567 (600-2)

AIRPORT DIAGRAM

PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)
AL-316 (FAA)
PENDLETON, OREGON



NW-1. 03 JUN 2010 to 01 JUL 2010

LOC I-PDT	APP CRS	Rwy ldg	6301
110.3	254°	TDZE	1487
		Apt Elev	1497

ILS or LOC/DME RWY 25

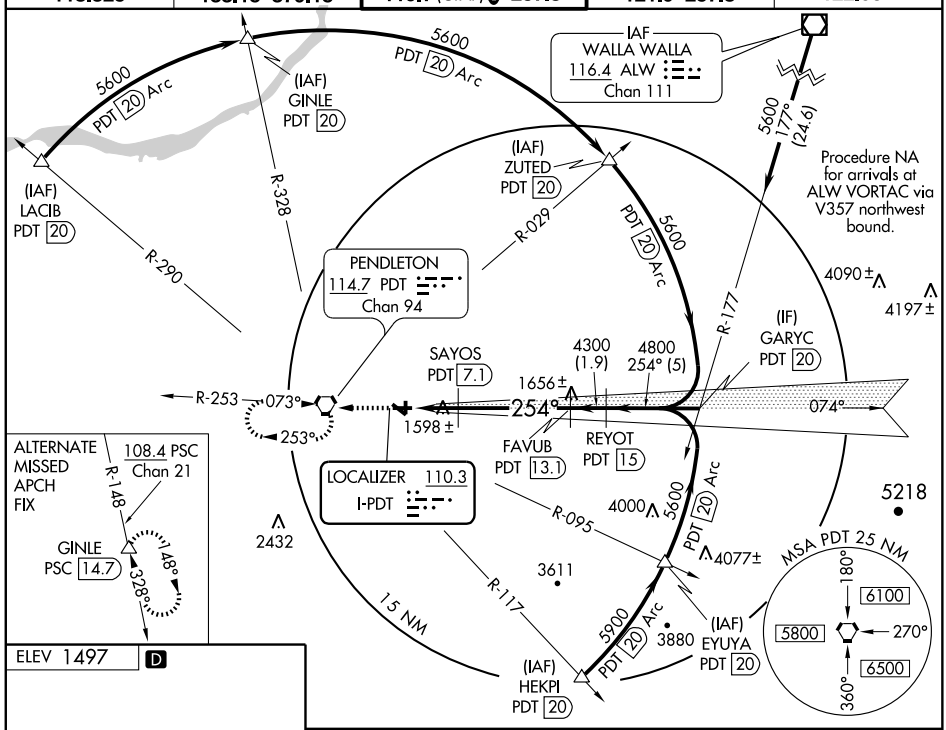
PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

T DME from PDT VORTAC. Simultaneous reception of I-PDT and PDT VORTAC DME required.
A When local altimeter setting not received, use Walla Walla altimeter setting and increase all DA/MDA 120 feet, and S-LOC 25 Cat C/D visibility ¼ mile.
For inoperative MALSR when using Walla Walla altimeter setting increase S-ILS 25 visibility all Cats to 1 mile.
** RVR 1800 authorized with the use of FD or AP or HUD to DA, NA when using Walla Walla altimeter seting.

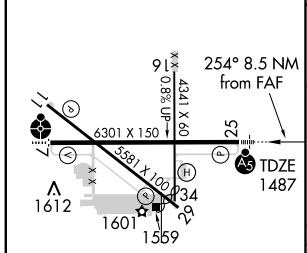
MALSR A5

MISSED APPROACH: Climb to 4000 direct PDT VORTAC and hold, continue climb-in-hold to 4000.

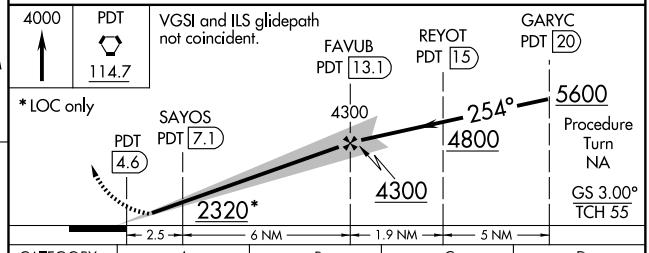
ASOS	CHINOOK APP CON ★	PENDLETON TOWER ★	GND CON	UNICOM
118.325	133.15 379.15	119.7 (CTAF) L 257.8	121.9 257.8	122.95



ELEV 1497 D



REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L
HIRL Rwy 7-25 L



CATEGORY	A	B	C	D
S-ILS 25	**1687/24 200 (200-½)			
S-LOC 25	1860/24 373 (400-½)			1860/40 373 (400-¾)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 73012 W07A	APP CRS 074°	Rwy ldg 6301 TDZE 1486 Apt Elev 1497

RNAV (GPS) RWY 7

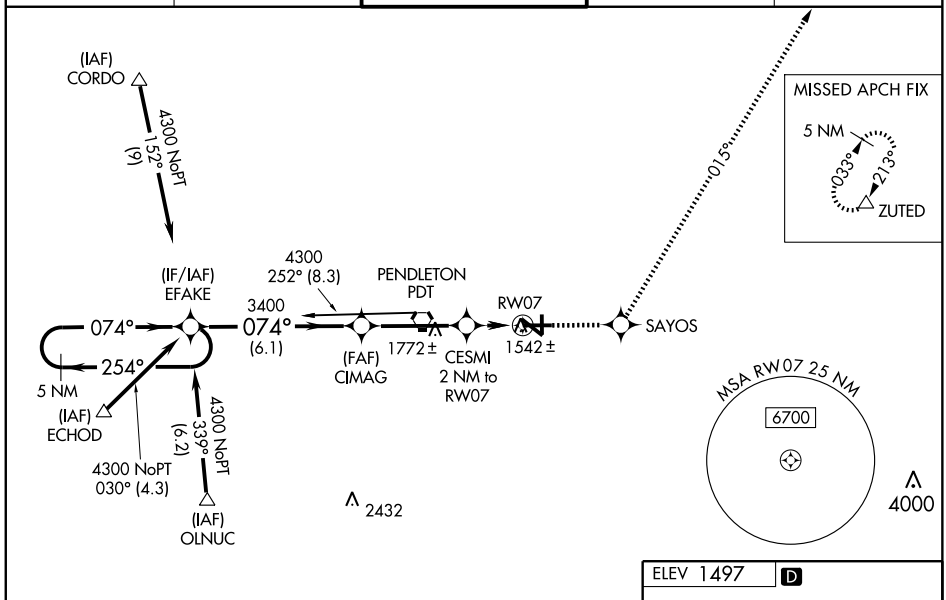
PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

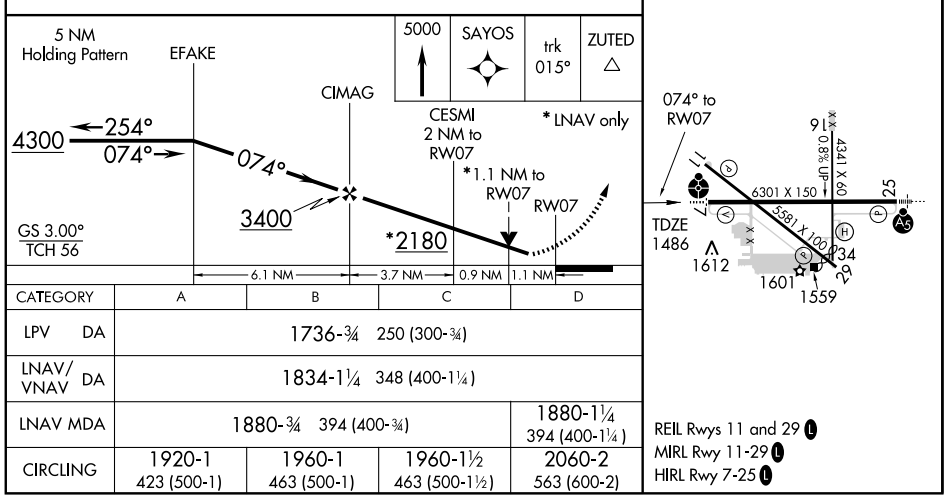
Inoperative table does not apply to LNAV/VNAV all Cats.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.
Visibility reduction by helicopters NA.
VDP and Baro-VNAV NA when using Walla Walla altimeter setting.
When local altimeter setting not received, use Walla Walla altimeter setting and increase all DA/MDA 120 feet, and all visibilities ¾ mile.
Inoperative table does not apply.

ODALS

MISSED APPROACH: Climb to 5000 direct SAYOS and via track 015° to ZUTED and hold.

ASOS	CHINOOK APP CON ★	PENDLETON TOWER ★	GND CON	UNICOM
118.325	133.15 379.15	119.7 (CTAF) L 257.8	121.9 257.8	122.95





CATEGORY	A	B	C	D
LPV DA	1736-¾ 250 (300-¾)			
LNAV/VNAV DA	1834-1¼ 348 (400-1¼)			
LNAV MDA	1880-¾ 394 (400-¾)			1880-1¼ 394 (400-1¼)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 82712 W11A	APP CRS 112°	Rwy ldg 5581 TDZE 1487 Apt Elev 1497

RNAV (GPS) RWY 11

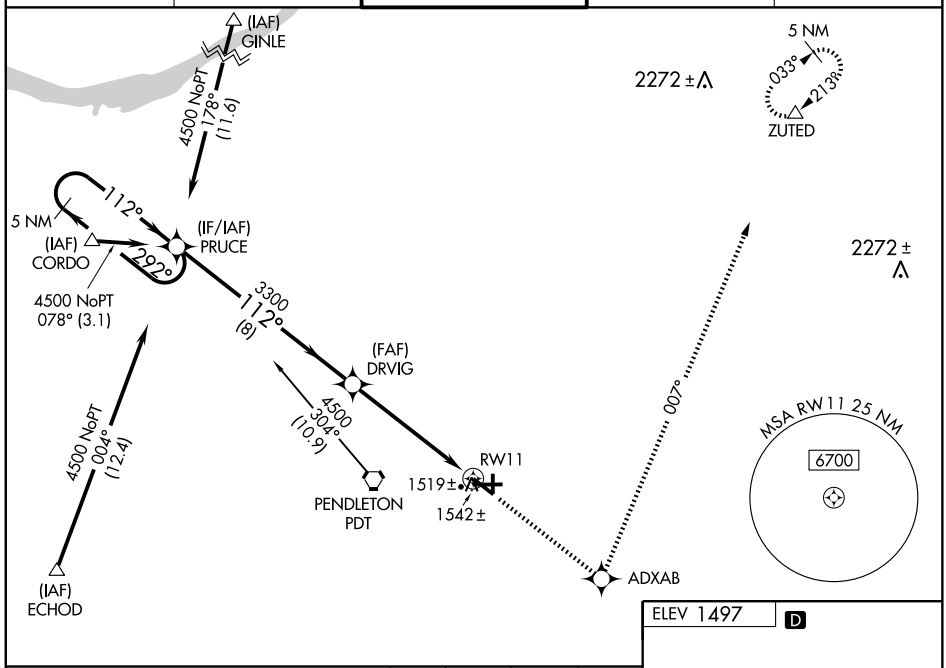
PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

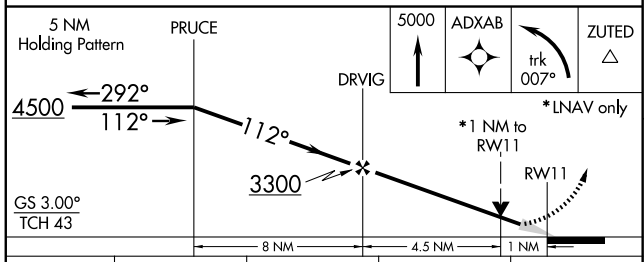
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.

When local altimeter setting not received, use Walla Walla altimeter setting: increase all DA/MDA 120 feet and visibility LPV all Cats ¼ mile, LNAV/VNAV all Cats ½ mile, LNAV Cats C and D ¼ mile and Circling Cat D ¼ mile. VDP and Baro-VNAV NA when using Walla Walla altimeter setting.

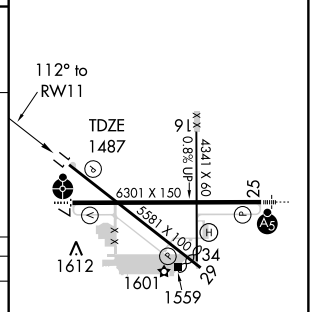
MISSED APPROACH: Climb to 5000 direct ADXAB and left turn via track 007° to ZUTED and hold.

ASOS	CHINOOK APP CON*	PENDLETON TOWER*	GND CON	UNICOM
118.325	133.15 379.15	119.7 (CTAF) L 257.8	121.9 257.8	122.95





CATEGORY	A	B	C	D
LPV DA	1737-1 250 (300-1)			
LNAV/ VNAV DA	1850-1¼ 363 (400-1¼)			
LNAV MDA	1860-1 373 (400-1)			1860-1¼ 373 (400-1¼)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)



REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L
HIRL Rwy 7-25 L

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 78412 W25A	APP CRS 254°	Rwy ldg 6301 TDZE 1487 Apt Elev 1497

RNAV (GPS) RWY 25

PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

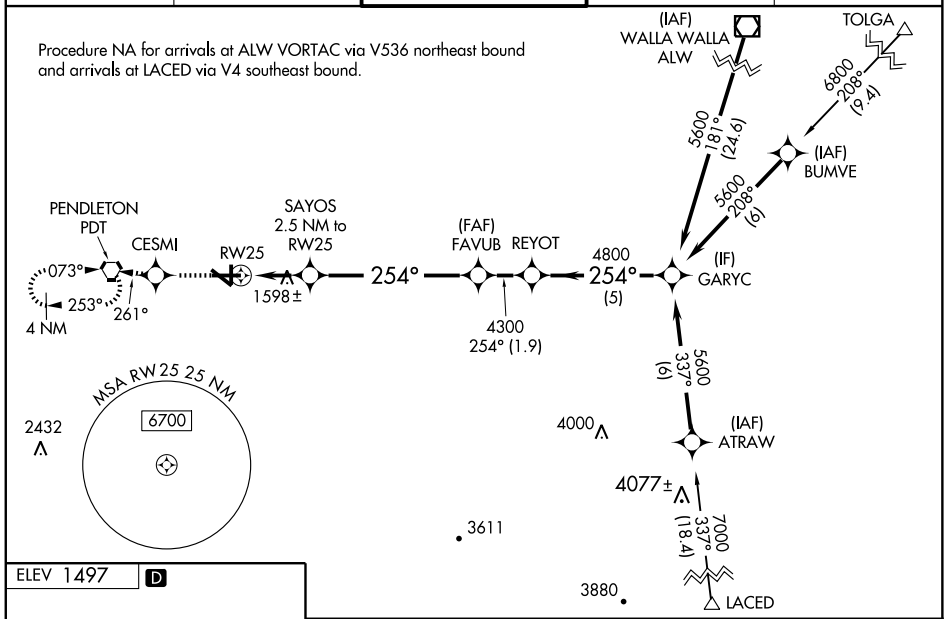
For inoperative MALSR, increase LNAV/VNAV Cat D visibility to RVR 5000, and LNAV Cat D to RVR 6000.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Walla Walla altimeter setting and increase all DA/MDA 120 feet, and all visibilities 1 mile; inoperative table does not apply.
VDP and Baro-VNAV NA when using Walla Walla altimeter setting.

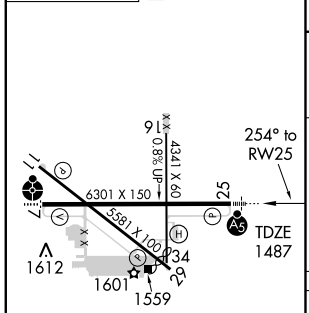
MALSR

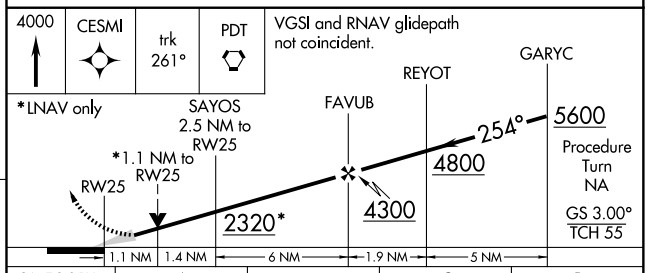
MISSED APPROACH: Climb to 4000 direct CESMI and via track 261° to PDT VORTAC and hold, continue climb-in-hold to 4000.

ASOS	CHINOOK APP CON★	PENDLETON TOWER★	GND CON	UNICOM
118.325	133.15 379.15	119.7 (CTAF) L 257.8	121.9 257.8	122.95

Procedure NA for arrivals at ALW VORTAC via V536 northeast bound and arrivals at LACED via V4 southeast bound.







CATEGORY	A	B	C	D
LPV DA	1687/24 200 (200-½)			
LNAV/VNAV DA	1800/24 313 (400-½)			1800/40 313 (400-¾)
LNAV MDA	1860/24 373 (400-½)			1860/50 373 (400-1)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L
HIRL Rwy 7-25 L

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 42513 W29A	APP CRS 292°	Rwy ldg 5125 TDZE 1497 Apt Elev 1497

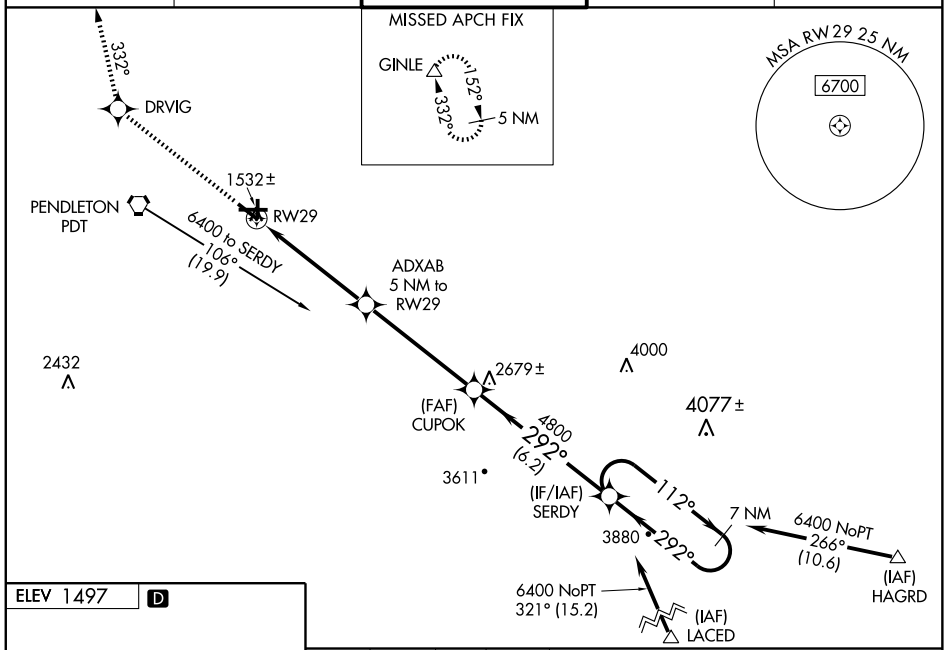
RNAV (GPS) RWY 29

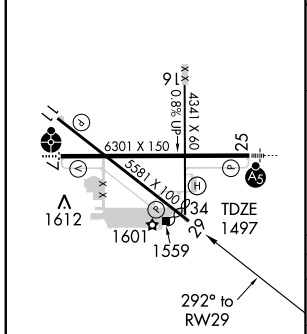
PENDLETON/EASTERN OREGON RGNL AT PENDLETON (PDT)

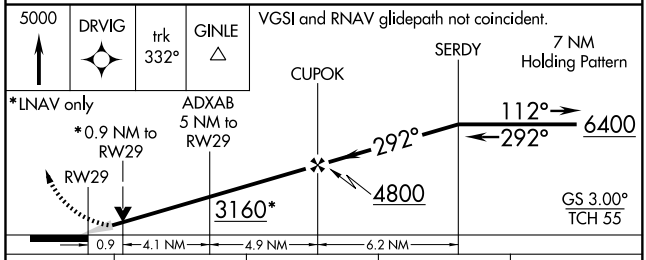
Inoperative table does not apply.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -17°C (2°F) or above 46°C (114°F). DME/DME RNP-0.3 NA.
When local altimeter setting not received, use Walla Walla altimeter setting: increase all DA/MDA 120 feet and visibility LPV all Cats ¼ mile, LNAV/VNAV all Cats ½ mile, LNAV Cats C and D ¼ mile and Circling Cat D ¼ mile.
VDP and Baro-VNAV NA when using Walla Walla altimeter setting.

MISSED APPROACH: Climb to 5000 direct DRVIG and via track 332° to GINLE and hold.

ASOS	CHINOOK APP CON★	PENDLETON TOWER★	GND CON	UNICOM
118.325	133.15 379.15	119.7 (CTAF) L 257.8	121.9 257.8	122.95







CATEGORY	A	B	C	D
LPV DA	1747-1 250 (300-1)			
LNAV/VNAV DA	1801-1 304 (400-1)			
LNAV MDA	1860-1 363 (400-1)			1860-1¼ 363 (400-1¼)
CIRCLING	1920-1 423 (500-1)	1960-1 463 (500-1)	1960-1½ 463 (500-1½)	2060-2 563 (600-2)

REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L
HIRL Rwy 7-25 L

NW-1, 03 JUN 2010 to 01 JUL 2010

VORTAC PDT 114.7 Chan 94	APP CRS 073°	Rwy ldg 6301 TDZE 1486 Apt Elev 1497

VOR RWY 7

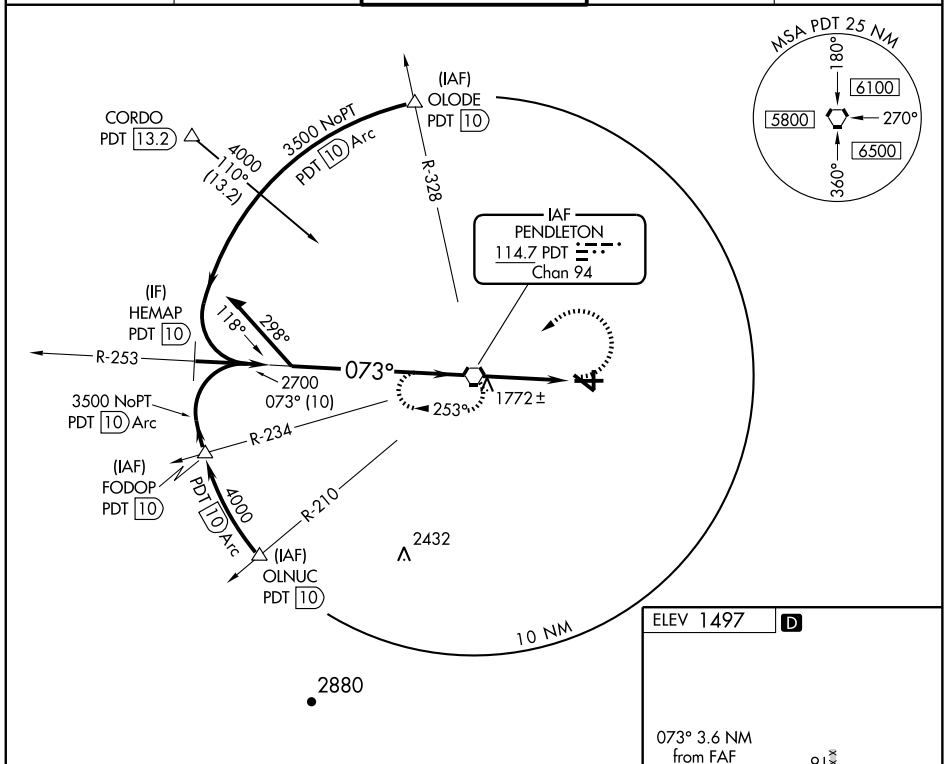
PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

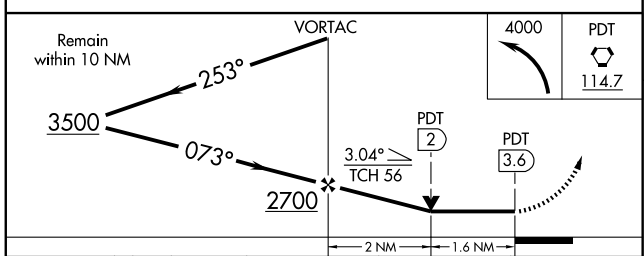
T Inoperative table does not apply to S-7 Cat C.
Visibility reduction by helicopters NA.
A When local altimeter setting not received, use Walla Walla altimeter setting and increase all MDA 120 feet, and all visibilities ½ mile.
Inoperative table does not apply when using Walla Walla altimeter setting.
VDP NA when using Walla Walla altimeter setting.

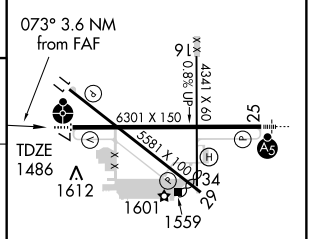
ODALS

MISSED APPROACH: Climbing left turn to 4000 direct PDT VORTAC and hold, continue climb-in-hold to 4000.

ASOS	CHINOOK APP CON★	PENDLETON TOWER★	GND CON	UNICOM
118.325	133.15 379.15	119.7 (CTAF) L 257.8	121.9 257.8	122.95







REIL Rwys 11 and 29 L
MIRL Rwy 11-29 L
HIRL Rwy 7-25 L

CATEGORY	A	B	C	D
S-7	2040-¾ 554 (600-¾)		2040-1½ 554 (600-1½)	2040-1¾ 554 (600-1¾)
CIRCLING	2040-1 543 (600-1)		2040-1½ 543 (600-1½)	2060-2 563 (600-2)

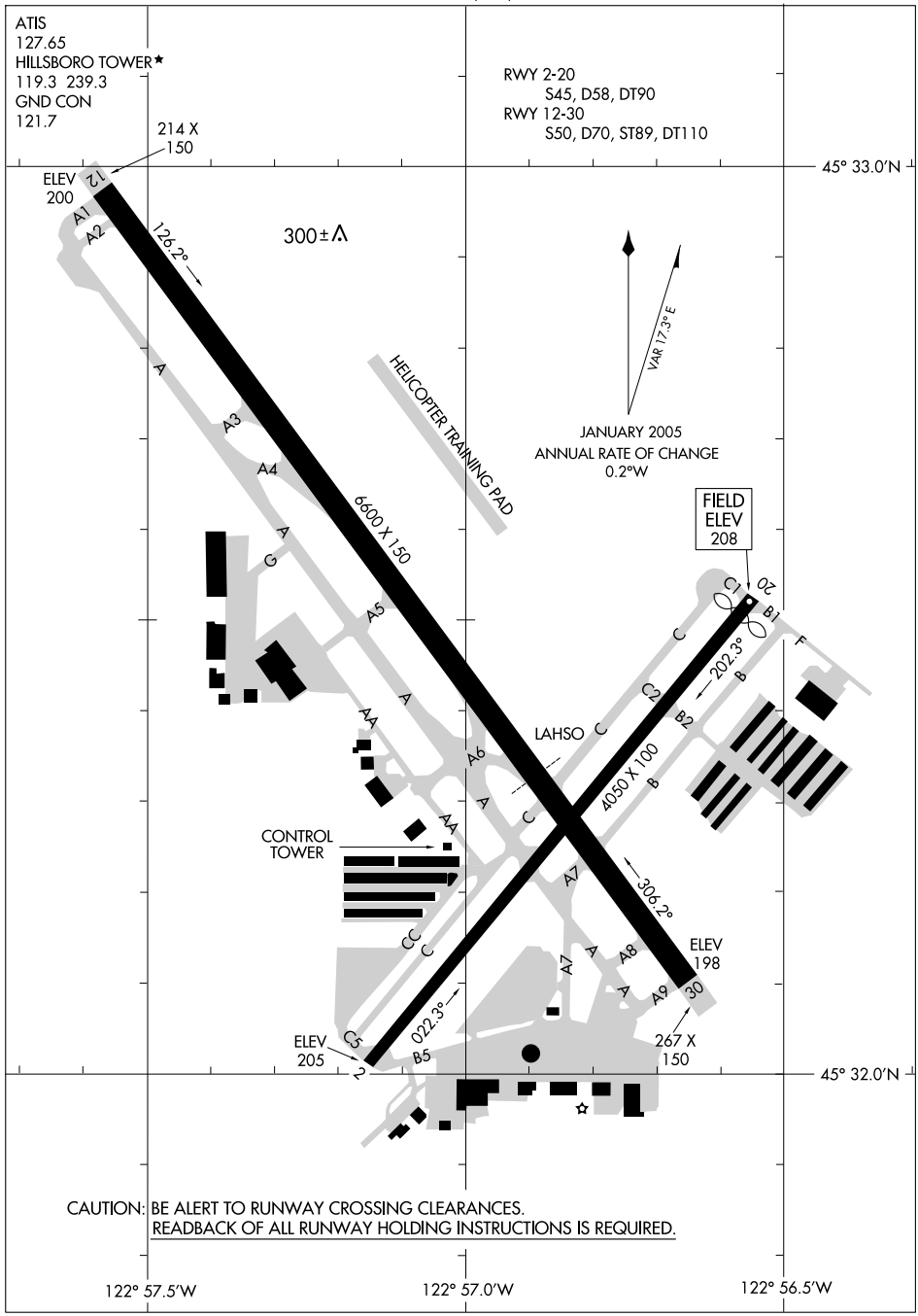
FAF to MAP 3.6 NM					
Knots	60	90	120	150	180
Min:Sec	3:36	2:24	1:48	1:26	1:12

NW-1, 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)
PORTLAND, OREGON

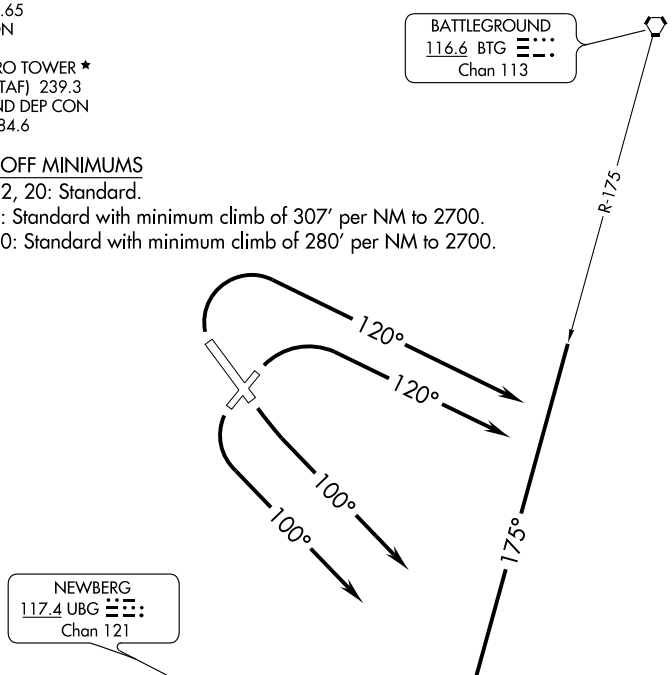


CANBY EIGHT DEPARTURE

SL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)
PORTLAND, OREGON

ATIS 127.65
GND CON
121.7
HILLSBORO TOWER ★
119.3 (CTAF) 239.3
PORTLAND DEP CON
126.0 284.6



NOTE: Chart not to scale.

TAKE-OFF MINIMUMS

Rwy 12, 20: Standard.
Rwy 2: Standard with minimum climb of 307′ per NM to 2700.
Rwy 30: Standard with minimum climb of 280′ per NM to 2700.

TAKE-OFF OBSTACLE NOTES

Rwy 2: Vehicle on road 247′ from DER, 1′ right of centerline, up to 15′ AGL/220′ MSL.
Terrain left and right of centerline beginning at DER up to 302′ MSL.
Rwy 12: Terrain left and right of centerline beginning at DER up to 296′ MSL.
Trees 1836′ from DER, 8′ left centerline, up to 125′ AGL/331′ MSL.
Rwy 20: Terrain left and right of centerline beginning at DER up to 306′ MSL.
Trees and hangars beginning 60′ from DER, 32′ left of centerline, up to 93′ AGL/311′ MSL.
Trees, antennas and buildings beginning 564′ from DER, 411′ right of centerline, up to 74′ AGL/280′ MSL.
Rwy 30: Terrain left and right of centerline beginning at DER up to 292′ MSL.
Trees beginning 1664′ from DER, 626′ right of centerline up to 194′ AGL/363′ MSL.

T

DEPARTURE ROUTE DESCRIPTION

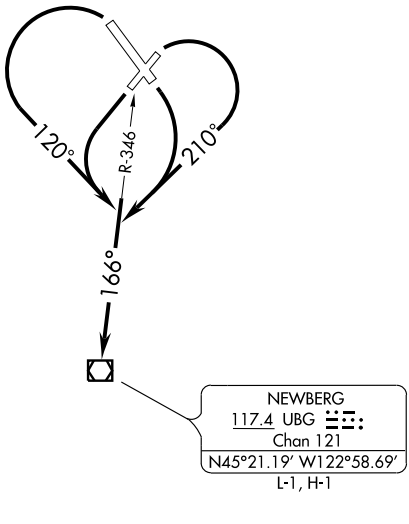
TAKE-OFF RUNWAYS 2, 30: Climbing right turn heading 120°, thence . . . .

TAKE-OFF RUNWAYS 12, 20: Climbing left turn heading 100°, thence . . . .

. . . . Intercept and proceed via BTG R-175 to CANBY INT. Thence via assigned route.

FARMINGTON FIVE DEPARTURE

ATIS 127.65
GND CON
121.7
HILLSBORO TOWER ★
119.3 (CTAF) 239.3
PORTLAND DEP CON
126.0 284.6



TAKE-OFF MINIMUMS
Rwy 12, 20: Standard.
Rwy 2: Standard with minimum climb of 307′ per NM to 2700.
Rwy 30: Standard with minimum climb of 235′ per NM to 2700.

TAKE-OFF OBSTACLE NOTES
Rwy 2: Vehicle on road 247′ from DER, 1′ right of centerline, up to 15′ AGL/220′ MSL.
Terrain left and right of centerline beginning at DER up to 302′ MSL.
Rwy 12: Terrain left and right of centerline beginning at DER up to 296′ MSL.
Trees 1836′ from DER, 8′ left centerline, up to 125′ AGL/331′ MSL.
Rwy 20: Terrain left and right of centerline beginning at DER up to 306′ MSL.
Trees and hangars beginning 60′ from DER, 32′ left of centerline, up to 93′ AGL/311′ MSL.
Trees, antennas and buildings beginning 564′ from DER, 411′ right of centerline, up to 74′ AGL/280′ MSL.
Rwy 30: Terrain left and right of centerline beginning at DER up to 292′ MSL.
Trees beginning 1664′ from DER, 626′ right of centerline up to 194′ AGL/363′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 2, 12: Turn right heading 210°, thence . . . .

TAKE-OFF RUNWAYS 20, 30: Turn left heading 120°, thence . . . .

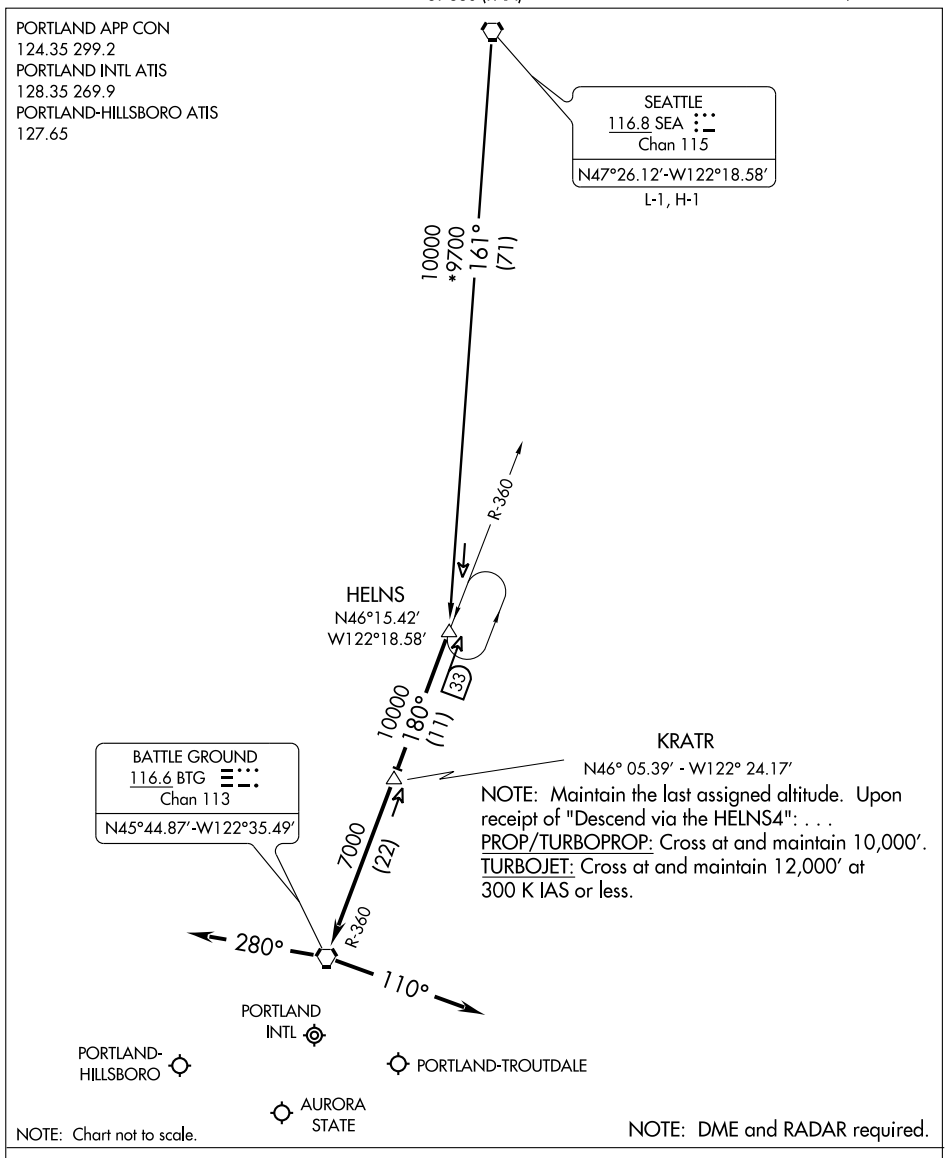
. . . . Intercept and proceed via UBG R-346 to UBG VOR/DME. Thence via (assigned route).

(HELNS.HELNS4) 03135

HELNS FOUR ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



SEATTLE TRANSITION (SEA.HELNS4): From over SEA VORTAC via SEA R-161 to HELNS DME FIX. Thence....

.... From over HELNS DME FIX via BTG R-360 to BTG VORTAC. Thence....

LANDING EAST: Depart BTG VORTAC heading 280° for vectors to final approach course.

LANDING WEST: Depart BTG VORTAC heading 110° for vectors to final approach course.

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC I-HIO	APP CRS	Rwy ldg	6600
110.7	128°	TDZE	203
		Apt Elev	208

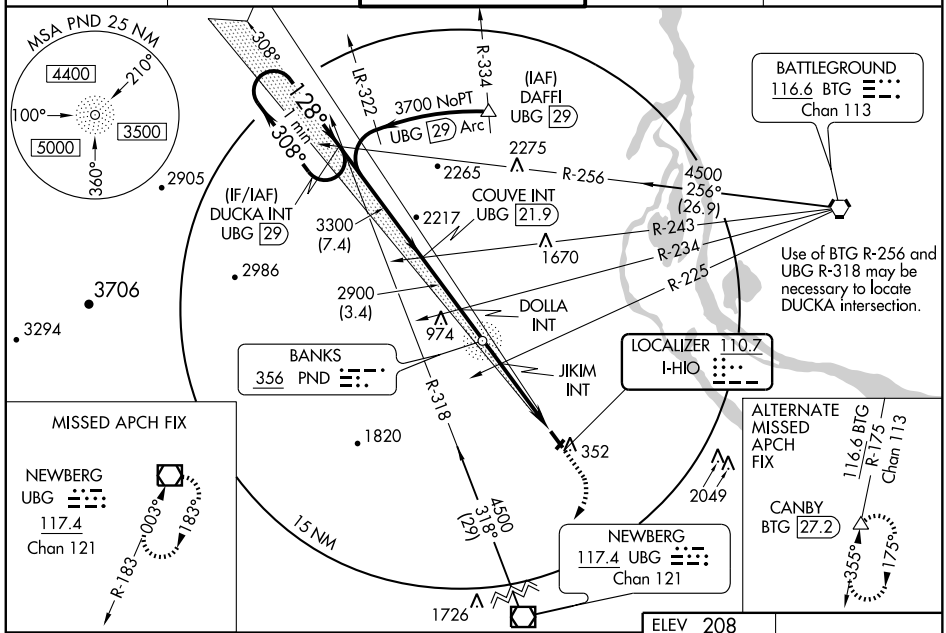
ILS or LOC RWY 12
PORTLAND-HILLSBORO (HIO)

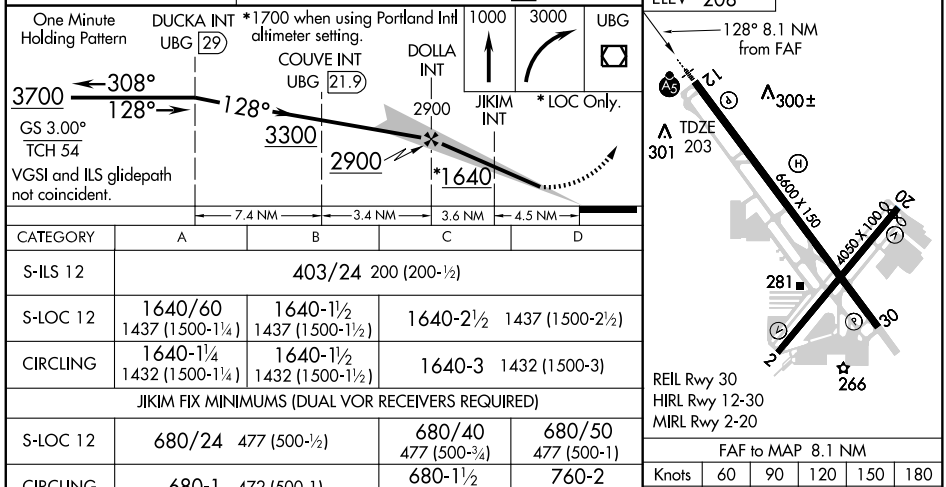
Inoperative table does not apply to S-LOC 12 Cats A and B. For inoperative MALSR when using Portland Intl altimeter setting, increase S-ILS 12 all Cats visibility to RVR 5000, inoperative table does not apply to S-LOC 12 Cats A and B. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA and MDA 60 feet, increase JIKIM fix minimums S-LOC 12 Cats C and D visibility ¼mile.

MALSR

MISSED APPROACH: Climb to 1000 then climbing right turn to 3000 direct UBG VOR/DME and hold.

ATIS	PORTLAND APP CON	HILLSBORO TOWER*	GND CON	UNICOM
127.65	126.0 284.6	119.3 (CTAF) L 239.3	121.7	122.95





CATEGORY	A	B	C	D
S-ILS 12	403/24 200 (200-½)			
S-LOC 12	1640/60 1437 (1500-1¼)	1640-1½ 1437 (1500-1½)	1640-2½ 1437 (1500-2½)	
CIRCLING	1640-1¼ 1432 (1500-1¼)	1640-1½ 1432 (1500-1½)	1640-3 1432 (1500-3)	
JIKIM FIX MINIMUMS (DUAL VOR RECEIVERS REQUIRED)				
S-LOC 12	680/24 477 (500-½)		680/40 477 (500-¾)	680/50 477 (500-1)
CIRCLING	680-1 472 (500-1)		680-1½ 472 (500-1½)	760-2 552 (600-2)

FAF to MAP 8.1 NM

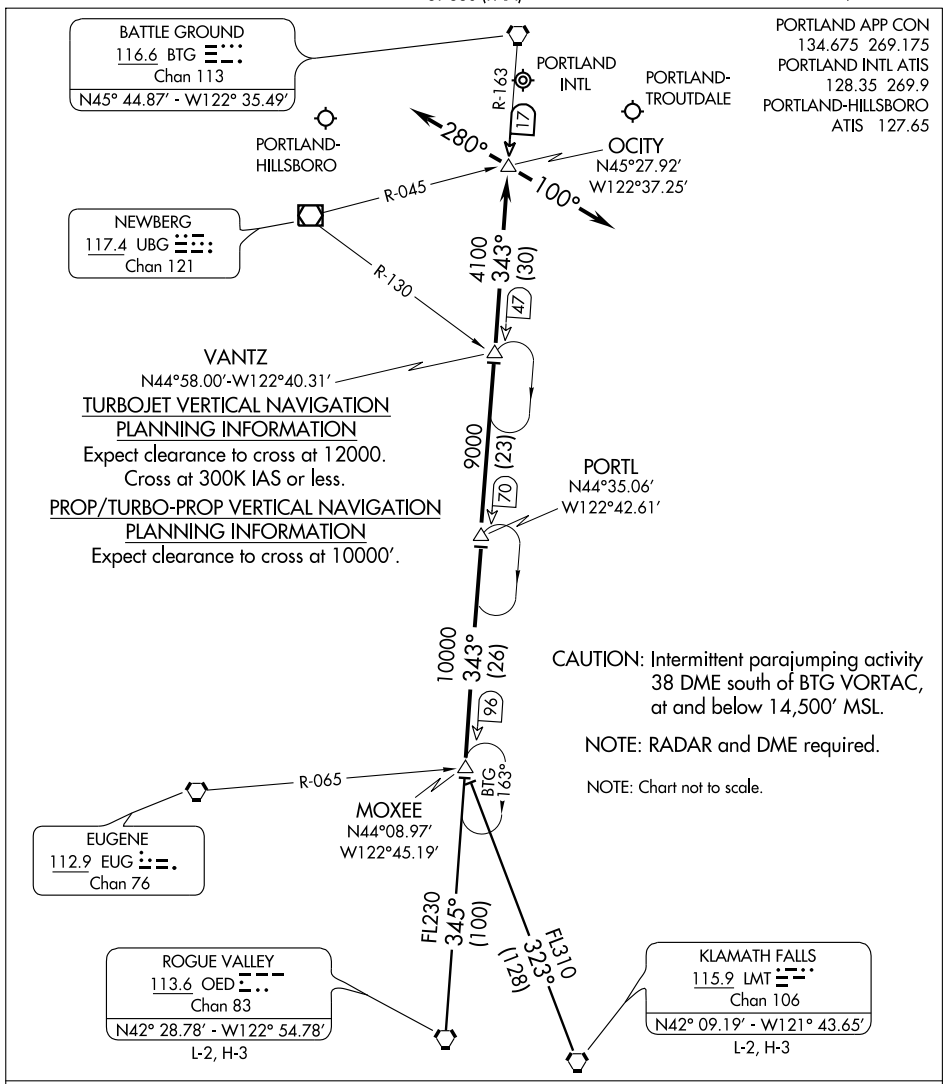
Knots	60	90	120	150	180
Min:Sec	8:06	5:24	4:03	3:14	2:42

NW-1, 03 JUN 2010 to 01 JUL 2010

MOXEE SIX ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



KLAMATH FALLS TRANSITION (LMT.MOXEE6): From over LMT VORTAC via LMT R-323 to MOXEE INT. Thence . . . .

ROGUE VALLEY TRANSITION (OED.MOXEE6): From over OED VORTAC via OED R-345 to MOXEE INT. Thence . . . .

. . . . From over MOXEE INT via BTG R-163 to OCITY INT. Thence via:

Landing East - Depart OCITY INT heading 280° for vectors to final approach course.

Landing West - Depart OCITY INT heading 100° for vectors to final approach course.

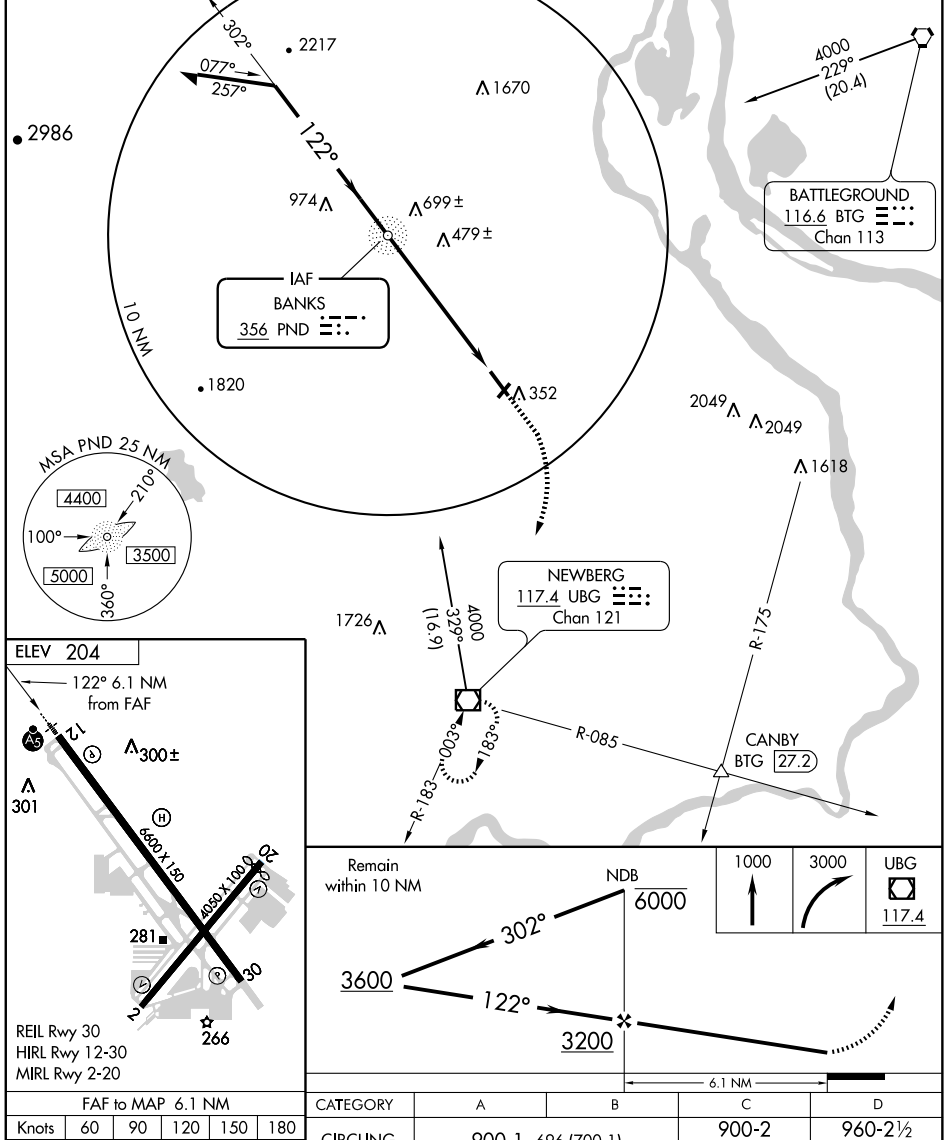
LOST COMMUNICATIONS: After OCITY INT, proceed direct BTG VORTAC.

PND NDB	APP CRS	Rwy ldg	N/A
356	122°	TDZE	N/A
		Apt Elev	204

NDB-B
PORTLAND-HILLSBORO (HIO)

MISSED APPROACH: Climb to 1000, then climbing right turn to 3000 direct UBG VOR/DME and hold.

ATIS	PORTLAND APP CON	HILLSBORO TOWER*	GND CON	UNICOM
127.65	126.0 284.6	119.3 (CTAF) 239.3	121.7	122.95



FAF to MAP 6.1 NM					
Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

CATEGORY	A	B	C	D
CIRCLING	900-1 696 (700-1)		900-2 696 (700-2)	960-2½ 756 (800-2½)

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 69502 W12A	APP CRS 127°	Rwy ldg 6600 TDZE 203 Apt Elev 208

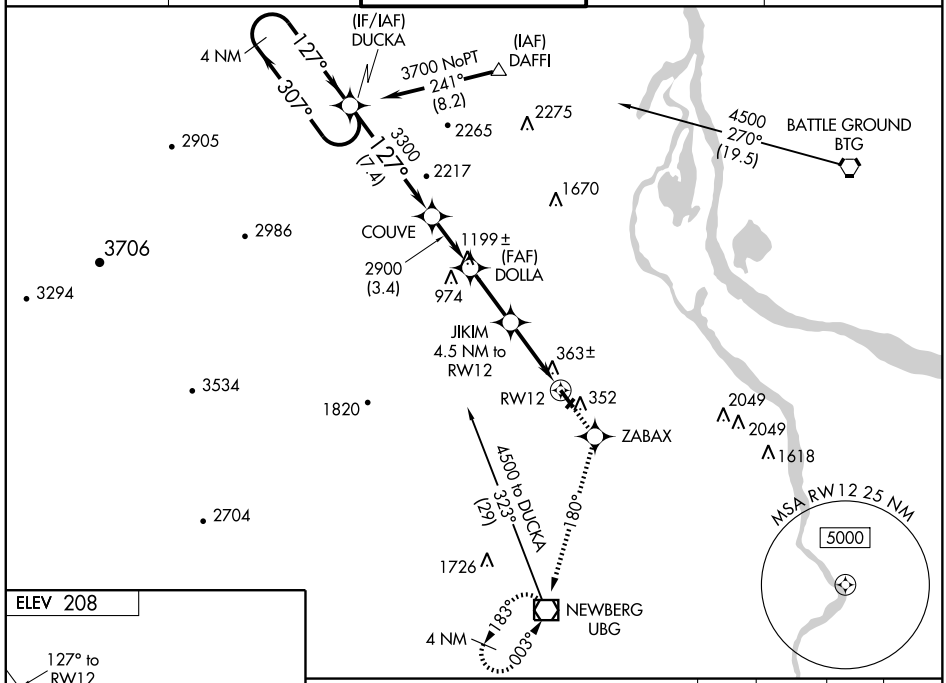
RNAV (GPS) RWY 12
PORTLAND-HILLSBORO (HIO)

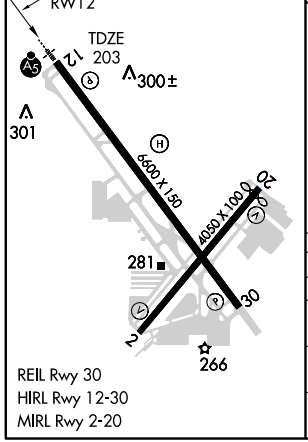
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F). DME/DME RNP- 0.3 NA. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA and MDA 60 feet, increase LNAV/VNAV all Cats and LNAV Cat C and D visibility ¼ mile. For inoperative MALSR when using Portland Intl altimeter setting, increase LPV all Cats visibility to RVR 5000, LNAV/VNAV all Cats visibility and LNAV Cat D visibility to RVR 6000. VDP and Baro-VNAV NA when using Portland Intl altimeter setting.

MALSR

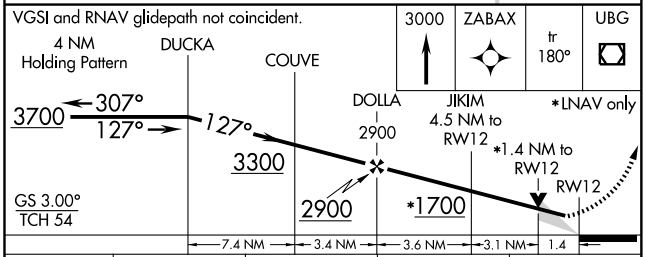
MISSED APPROACH: Climb to 3000 direct ZABAX and on track 180° to UBG VOR/DME and hold.

ATIS	PORTLAND APP CON	HILLSBORO TOWER*	GND CON	UNICOM
127.65	126.0 284.6	119.3 (CTAF) L 239.3	121.7	122.95





REIL Rwy 30
HIRL Rwy 12-30
MIRL Rwy 2-20



CATEGORY	A	B	C	D
LPV DA	403/24 200 (200-½)			
LNAV/VNAV DA	650/50 447 (500-1)			
LNAV MDA	680/24 477 (500-½)		680/40 477 (500-¾)	680/50 477 (500-1)
CIRCLING	680-1 472 (500-1)		680-1½ 472 (500-1½)	760-2 552 (600-2)

NW-1, 03 JUN 2010 to 01 JUL 2010

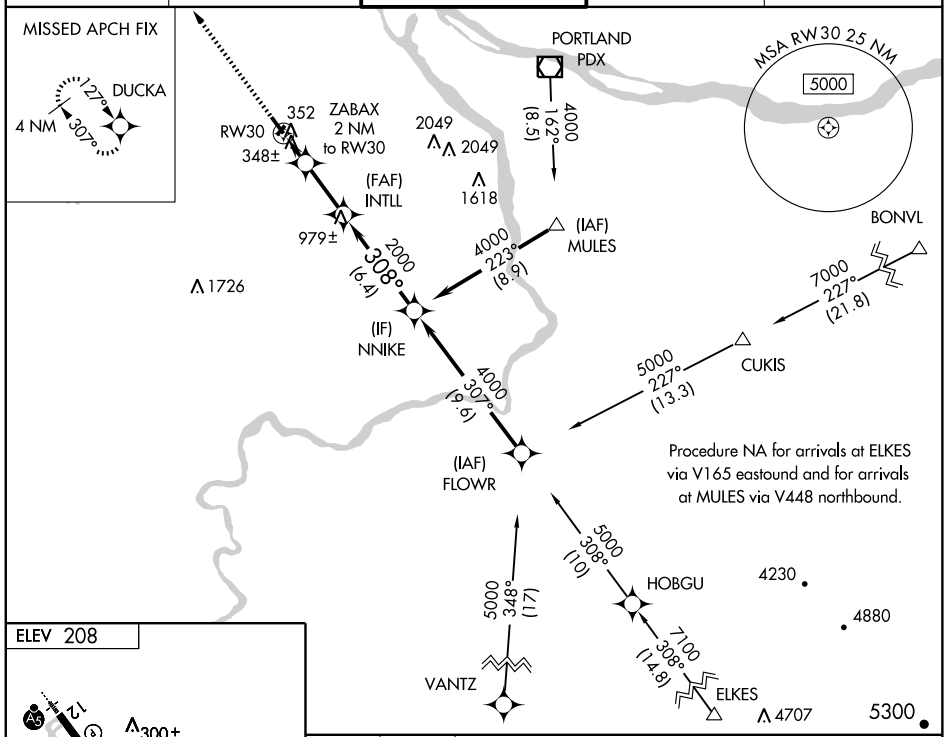
WAAS CH 69417 W30A	APP CRS 308°	Rwy ldg 6600 TDZE 204 Apt Elev 208

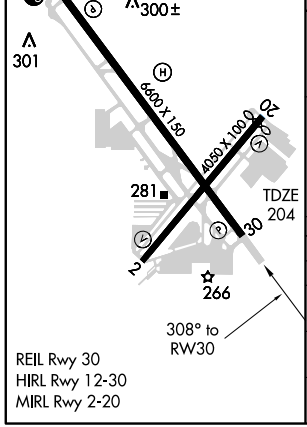
RNAV (GPS) RWY 30
PORTLAND-HILLSBORO (HIO)

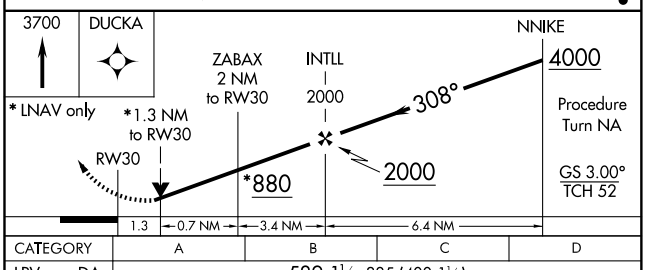
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. VDP and Baro-VNAV NA when using Portland Intl altimeter setting. When local altimeter setting not received, use Portland Intl altimeter setting and increase all DA and MDA 60 feet, increase LPV all Cats, LNAV/VNAV all Cats, and LNAV Cats C and D visibility ¼ mile.

MISSED APPROACH: Climb to 3700 direct DUCKA and hold.

ATIS	PORTLAND APP CON	HILLSBORO TOWER★	GND CON	UNICOM
127.65	126.0 284.6	119.3 (CTAF) 239.3	121.7	122.95







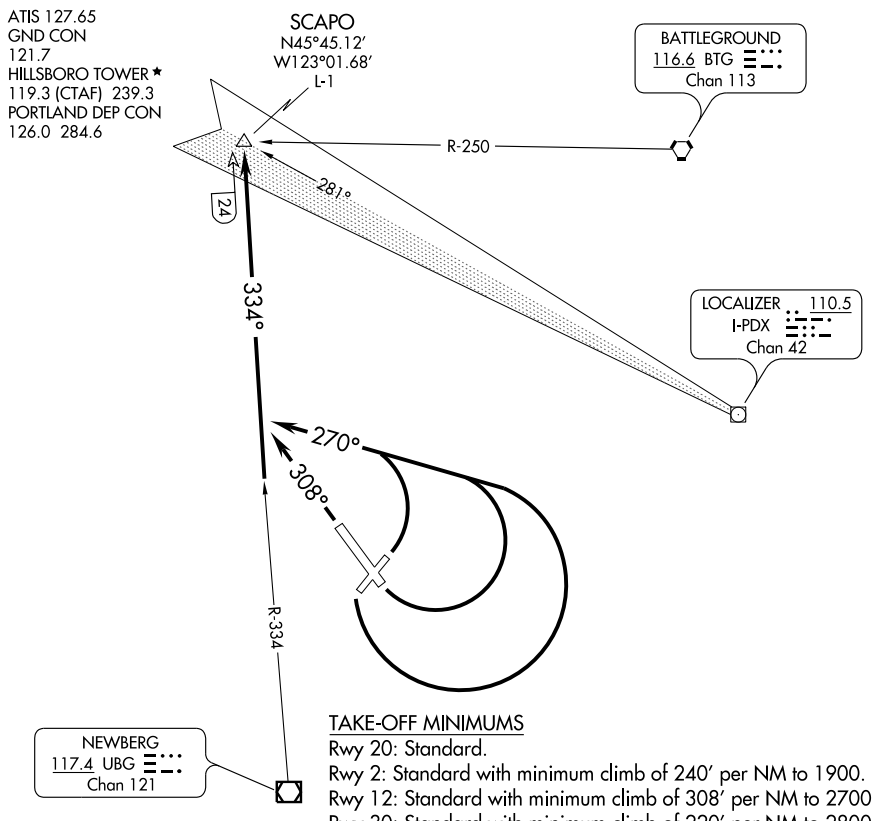
CATEGORY	A	B	C	D
LPV DA	589-1¼ 385 (400-1¼)			
LNAV/VNAV DA	657-1½ 453 (500-1½)			
LNAV MDA	660-1 456 (500-1)		660-1¼ 456 (500-1¼)	660-1½ 456 (500-1½)
CIRCLING	680-1 472 (500-1)		680-1½ 472 (500-1½)	760-2 552 (600-2)

NW-1. 03 JUN 2010 to 01 JUL 2010

SCAPO FIVE DEPARTURE

SL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)
PORTLAND, OREGON



TAKE-OFF MINIMUMS

Rwy 20: Standard.
Rwy 2: Standard with minimum climb of 240′ per NM to 1900.
Rwy 12: Standard with minimum climb of 308′ per NM to 2700.
Rwy 30: Standard with minimum climb of 220′ per NM to 2800.

TAKE-OFF OBSTACLE NOTES

Rwy 2: Vehicle on road 247′ from DER, 1′ right of centerline, up to 15′ AGL/220′ MSL.
Terrain left and right of centerline beginning at DER up to 302′ MSL.
Rwy 12: Terrain left and right of centerline beginning at DER up to 296′ MSL.
Trees 1836′ from DER, 8′ left centerline, up to 125′ AGL/331′ MSL.
Rwy 20: Terrain left and right of centerline beginning at DER up to 306′ MSL.
Trees and hangars beginning 60′ from DER, 32′ left of centerline, up to 93′ AGL/311′ MSL.
Trees, antennas and buildings beginning 564′ from DER, 411′ right of centerline, up to 74′ AGL/280′ MSL.
Rwy 30: Terrain left and right of centerline beginning at DER up to 292′ MSL.
Trees beginning 1664′ from DER, 626′ right of centerline up to 194′ AGL/363′ MSL.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 2, 12, 20: Climbing left turn heading 270°, thence . . . .

TAKE-OFF RUNWAY 30: Climb heading 308°, thence . . . .

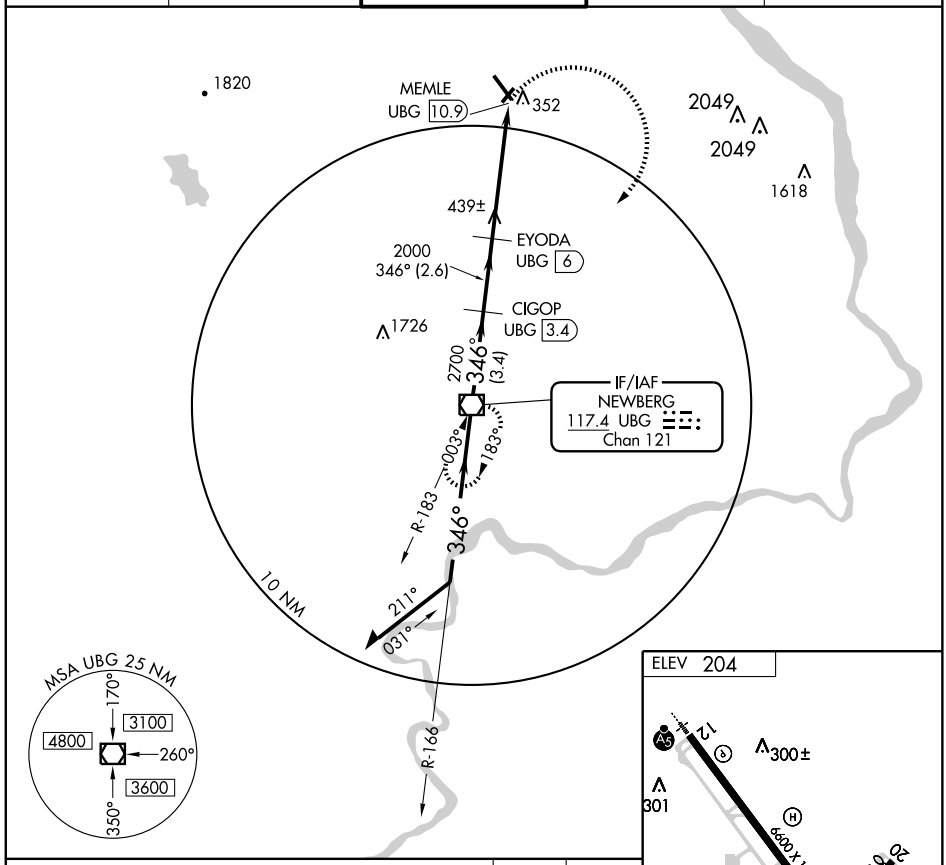
. . . . Intercept and proceed via UBG VOR/DME R-334 to SCAPO INT/UBG 24 DME, thence via (assigned route).

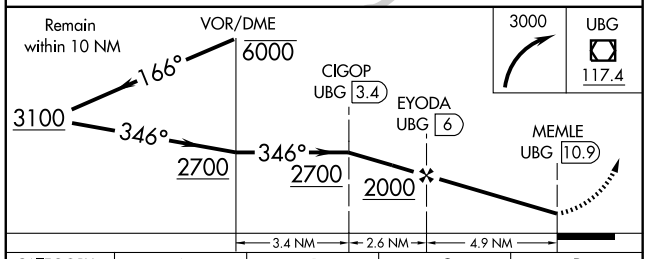
VOR/DME UBG	APP CRS	Rwy ldg	N/A
117.4	346°	TDZE	N/A
Chan 121		Apt Elev	204

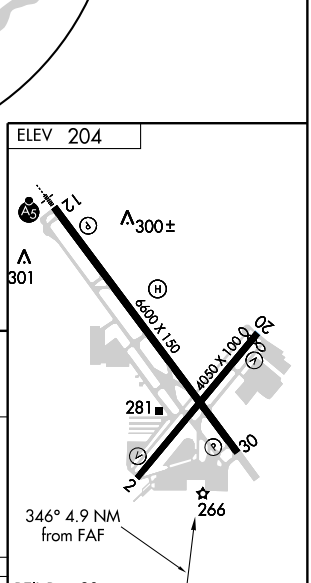
VOR/DME-C
PORTLAND-HILLSBORO (HIO)

MISSED APPROACH: Climbing right turn to 3000 direct UBG VOR/DME and hold.

ATIS	PORTLAND APP CON	HILLSBORO TOWER*	GND CON	UNICOM
127.65	126.0 284.6	119.3 (CTAF) 239.3	121.7	122.95

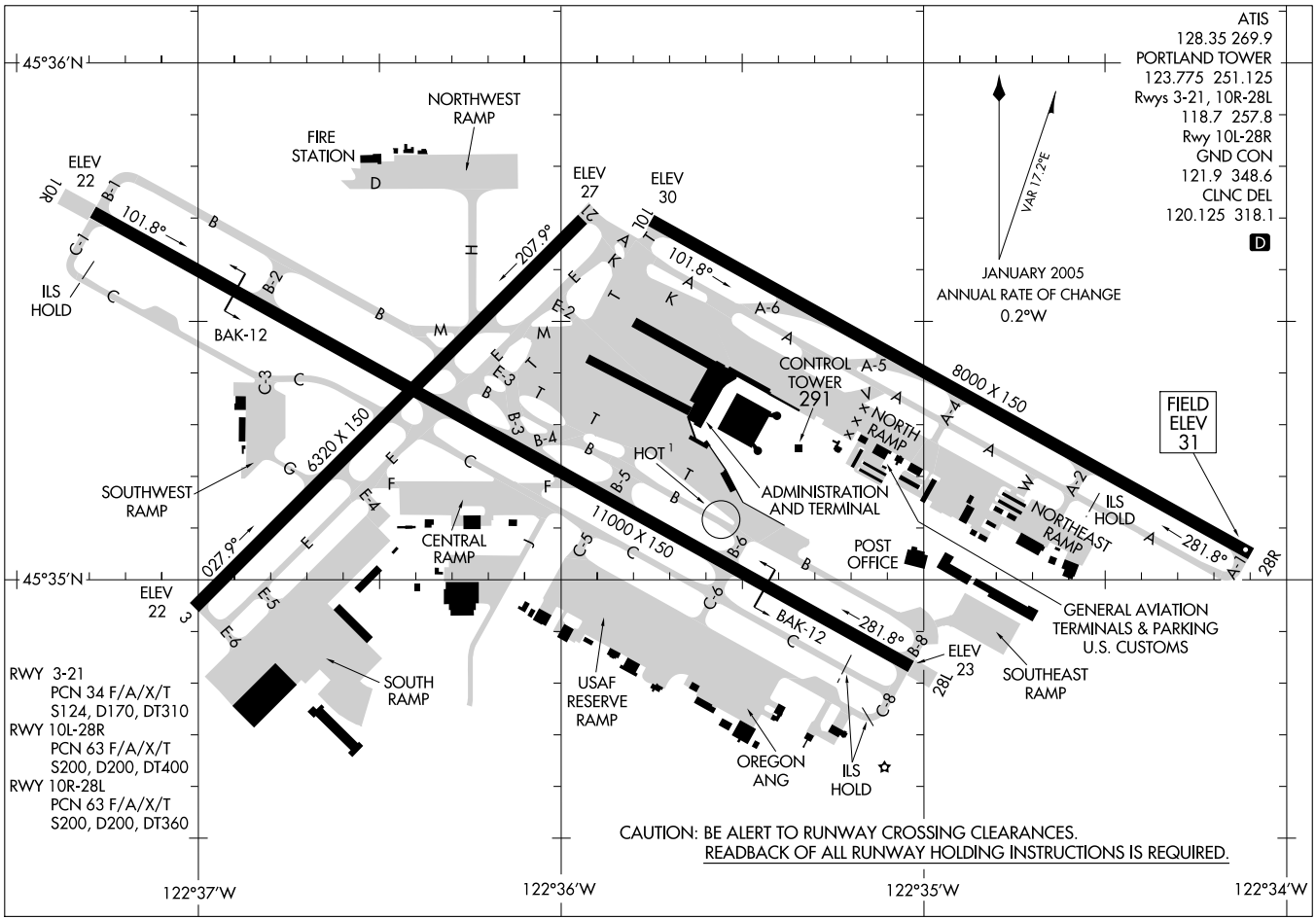






CATEGORY	A	B	C	D
CIRCLING	700-1 496 (500-1)		700-1½ 496 (500-1½)	760-2 556 (600-2)

REIL Rwy 30
HIRL Rwy 12-30
MIRL Rwy 2-20


AIRPORT DIAGRAM
PORTLAND INTL (PDX)
PORTLAND, OREGON
AL-330 (FAA)
ATIS
128.35 269.9
PORTLAND TOWER
123.775 251.125
Rwys 3-21, 10R-28L
118.7 257.8
Rwy 10L-28R
GND CON
121.9 348.6
CLNC DEL
120.125 318.1
D
JANUARY 2005
ANNUAL RATE OF CHANGE
0.2°W
VAR 17.2°E
45°36'N
45°35'N
122°37'W
122°36'W
122°35'W
122°34'W
NORTHWEST RAMP
FIRE STATION
ELEV 22
10R
B-1
101.8°
C-1
ILS HOLD
BAK-12
B-2
C-3
6320 X 150
SOUTHWEST RAMP
027.9°
ELEV 22
3
E-6
E-5
SOUTH RAMP
207.9°
ELEV 27
21
E-2
E-3
B-3
B-4
CENTRAL RAMP
ELEV 30
101
101.8°
A-6
CONTROL TOWER
291
A-5
8000 X 150
NORTH RAMP
A-4
A-2
ILS HOLD
NORTHEAST RAMP
FIELD ELEV 31
281.8°
A-1
28R
HOT 1
ADMINISTRATION AND TERMINAL
B-5
11000 X 150
B-6
C-5
C-6
POST OFFICE
GENERAL AVIATION TERMINALS & PARKING
U.S. CUSTOMS
BAK-12
281.8°
B-8
ELEV 23
28L
C-8
SOUTHEAST RAMP
USAF RESERVE RAMP
OREGON ANG
ILS HOLD
RWY 3-21
PCN 34 F/A/X/T
S124, D170, DT310
RWY 10L-28R
PCN 63 F/A/X/T
S200, D200, DT400
RWY 10R-28L
PCN 63 F/A/X/T
S200, D200, DT360
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

PORTLAND APP CON
124.35 299.2
ATIS
128.35 269.9

KIMBERLY TRANSITION (IMB.BONVL6): From over IMB VORTAC via IMB R-287 to DUFUR, then via PDX R-079 to BONVL, Thence. . . .

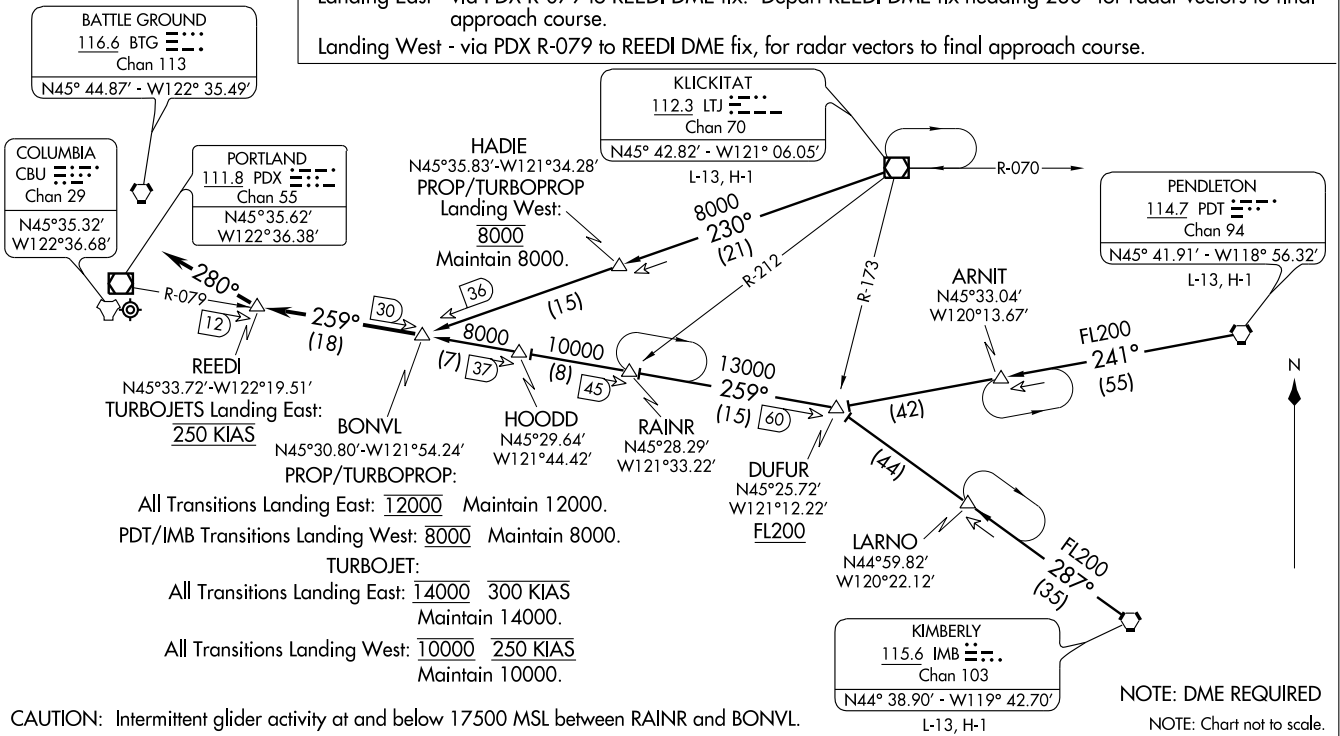
KLICKITAT TRANSITION (LTJ.BONVL6): From over LTJ VOR/DME via LTJ R-230 to BONVL. Thence. . . .

PENDLETON TRANSITION (PDT.BONVL6): From over PDT VORTAC via PDT R-241 to DUFUR, then via PDX R-079 to BONVL. Thence. . . .

....From over BONVL :

Landing East - via PDX R-079 to REEDI DME fix. Depart REEDI DME fix heading 280° for radar vectors to final approach course.

Landing West - via PDX R-079 to REEDI DME fix, for radar vectors to final approach course.



PROP/TURBOPROP:

All Transitions Landing East: 12000 Maintain 12000.

PDT/IMB Transitions Landing West: 8000 Maintain 8000.

TURBOJET:

All Transitions Landing East: 14000 300 KIAS
Maintain 14000.

All Transitions Landing West: 10000 250 KIAS
Maintain 10000.

CAUTION: Intermittent glider activity at and below 17500 MSL between RAINR and BONVL.

NOTE: DME REQUIRED

NOTE: Chart not to scale.

COLUMBIA VISUAL RWY 10L/R

AL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON

ATIS 128.35 269.9
PORTLAND APP CON★
124.35 299.2
PORTLAND TOWER
Rwy 10L-28R
118.7 257.8
Rwys 3-21, 10R-28L
123.775 251.125
GND CON
121.9 348.6
CLNC DEL
120.125 318.1

SCAPPOOSE INDUSTRIAL AIRPARK

SAUVIE ISLAND

PDX R-276

CONFLUENCE OF RIVERS

LAKE VANCOUVER

I-5

I-205

Vertical Guidance Navaid and Angle:
Runway 10R: I-PDX LOC 110.5 GS (3.00°)
Runway 10L: I-VDG LOC 111.3 GS (3.00°)

PDX
8
2500
RECOMMENDED

COLUMBIA RIVER–R-276

PEARSON FIELD

PORTLAND
111.8 PDX
Chan 55

WILLAMETTE RIVER

10R
21
3
10L
28L
28R

RWY 10L ONLY:
FRWY I-5 BRIDGE
PDX
3.2
1400
RECOMMENDED

ANTENNA FARM
2049
2049

PORTLAND-HILLSBORO

RADAR REQUIRED

Weather Minima: 3500 feet ceiling and 5 mile visibility

	1 NM	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

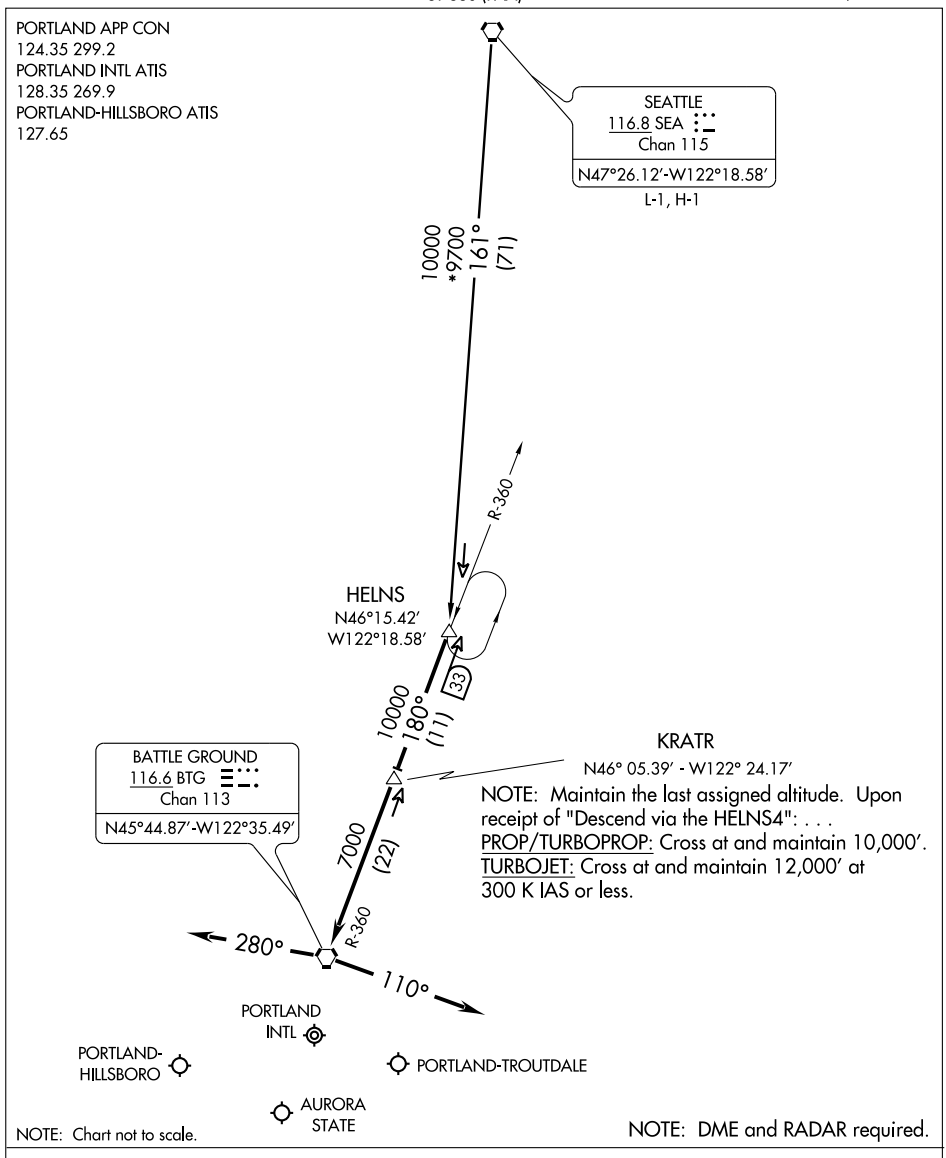
PROCEDURE NOT AUTHORIZED AT NIGHT.

(HELNS.HELNS4) 03135

HELNS FOUR ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



SEATTLE TRANSITION (SEA.HELNS4): From over SEA VORTAC via SEA R-161 to HELNS DME FIX. Thence....

.... From over HELNS DME FIX via BTG R-360 to BTG VORTAC. Thence....

LANDING EAST: Depart BTG VORTAC heading 280° for vectors to final approach course.

LANDING WEST: Depart BTG VORTAC heading 110° for vectors to final approach course.

NW-1, 03 JUN 2010 to 01 JUL 2010

HI-ILS or LOC/DME RWY 10R

LOCALIZER I-PDX	APCH CRS	Rwy ldg 11,000
110.5	101°	TDZE 24
Chan 42		Arpt Elev 30

JAL-330 [USAF]

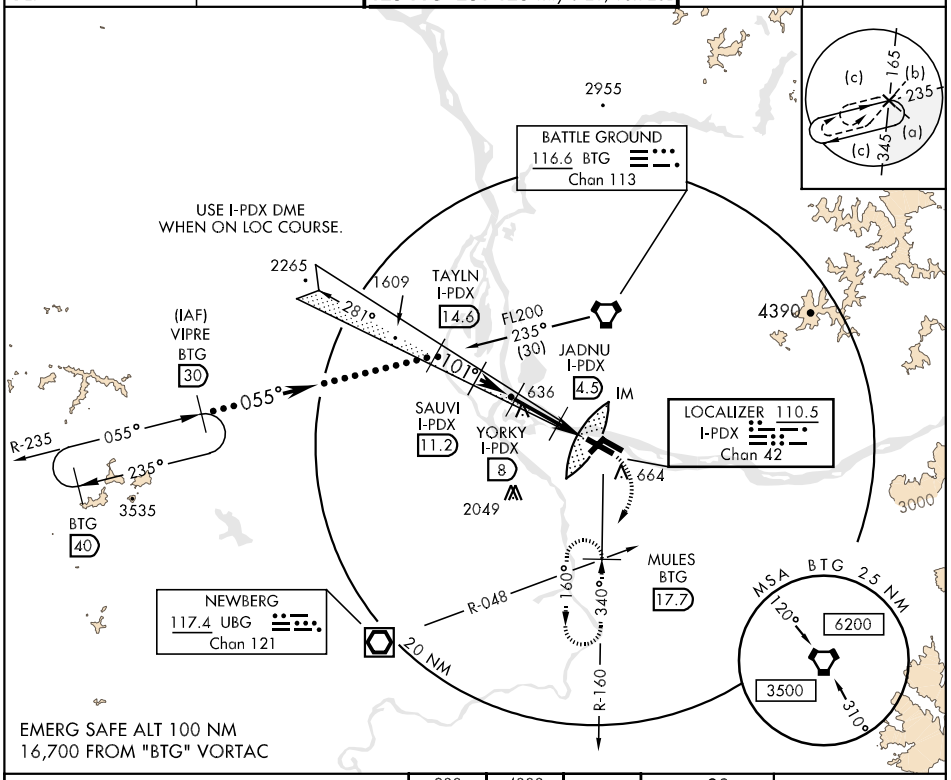
PORTLAND INTL (KPDX)

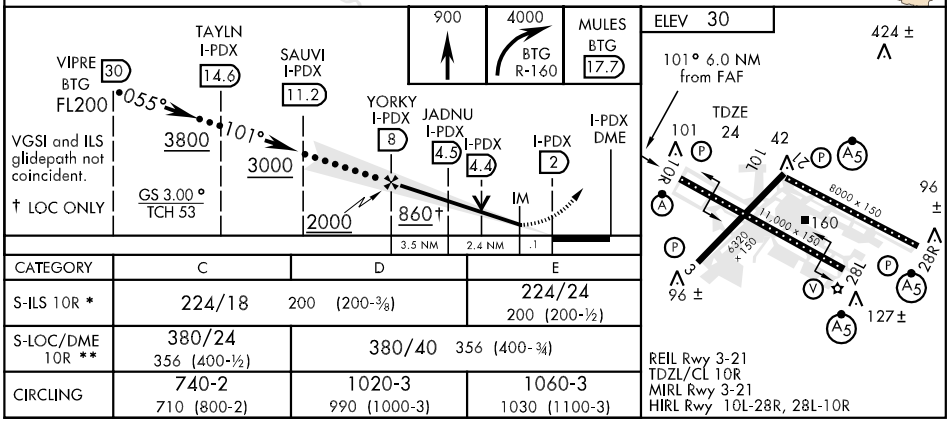
* When ALS inop, increase RVR to 40 and vis to ¾ mile.
** When ALS inop, increase CAT C RVR to 50 and vis to 1 mile, CAT DE RVR to 60 and vis to 1¼ miles.

ALSF-2

MISSED APPROACH: Climb to 900, then climbing right turn to 4000 via BTG VORTAC R-160 to MULES and hold.

ATIS	PORTLAND APP CON	PORTLAND TOWER	GND CON	CLNC DEL
ARR 128.35 269.9	124.35 299.2	118.7 257.8 Rwy 10L-28R	121.9 348.6	120.125 318.1
DEP 120.625 239.25		123.775 251.125 Rwy 3-21, 10R-28L		





CATEGORY	C	D	E
S-ILS 10R *	224/18 200 (200-⅜)		224/24 200 (200-½)
S-LOC/DME 10R **	380/24 356 (400-½)	380/40 356 (400-¾)	
CIRCLING	740-2 710 (800-2)	1020-3 990 (1000-3)	1060-3 1030 (1100-3)

HI-ILS or LOC/DME RWY 28R

LOCALIZER I-IAP	APCH CRS	Rwy ldg	8000
111.3	279°	TDZE	30
Chan 50		Arpt Elev	30

JAL-330 [USAF]

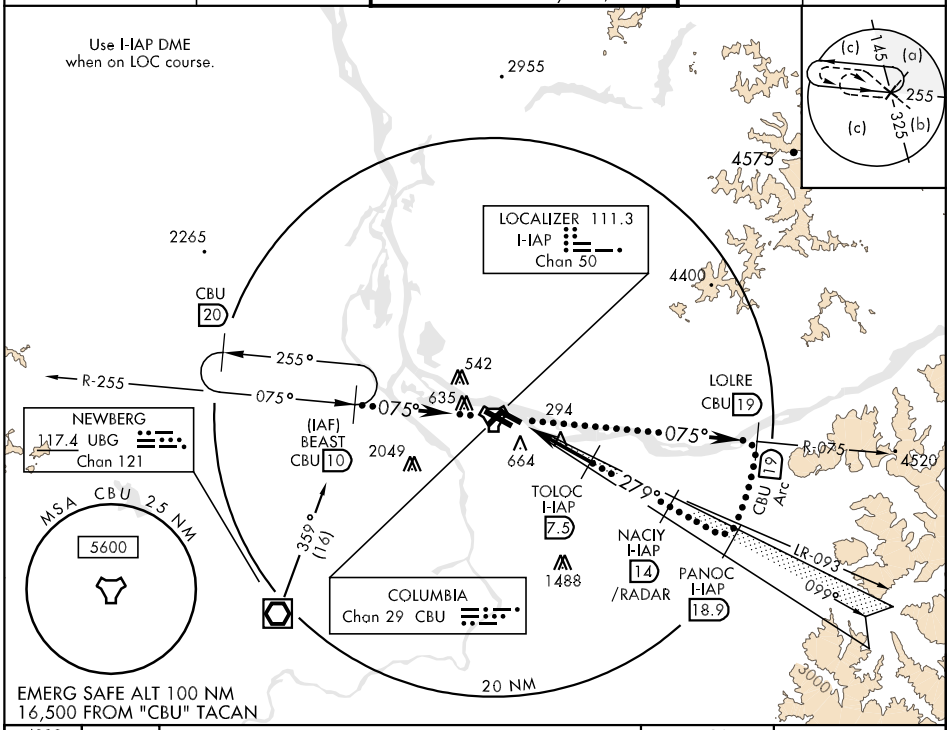
PORTLAND INTL (KPDX)

* When ALS inop, increase CAT E vis to 2 miles.
** Circling NA at night to Rwy 3.

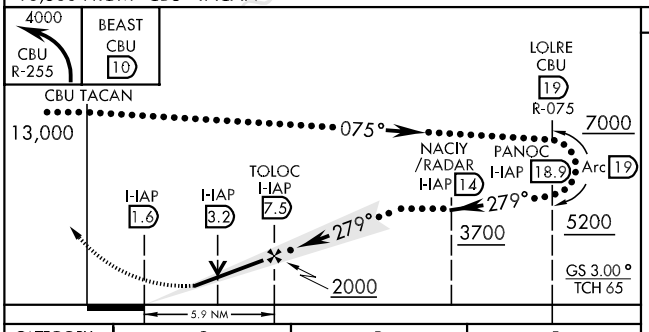
MALSR A5

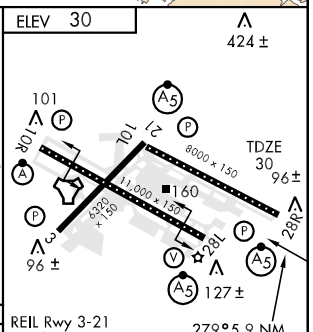
MISSED APPROACH: Climbing left turn to 4000 via CBU TACAN R-255 to BEAST and hold.

ATIS	PORTLAND APP CON	PORTLAND TOWER	GND CON	CLNC DEL
ARR 128.35 269.9	124.35 299.2	118.7 257.8 Rwy 10L-28R	121.9 348.6	120.125 318.1
DEP 120.625 239.25		123.775 251.125 Rwy 3-21, 10R-28L		



EMERG SAFE ALT 100 NM
16,500 FROM "CBU" TACAN





CATEGORY	C	D	E
S-ILS 28R	280/40	250	(300-¾)
S-LOC 28R*	600/50 570 (600-1)	600/60 570 (600-1¼)	600-1½ 570 (600-1½)
CIRCLING**	740-2 710 (800-2)	1020-3 990 (1000-3)	1060-3 1030 (1100-3)

LOC FAF to MAP 5.9 NM					
Knots	120	140	160	180	200
Min:Sec	2:57	2:32	2:32	1:58	1:46

HI-TACAN RWY 10R

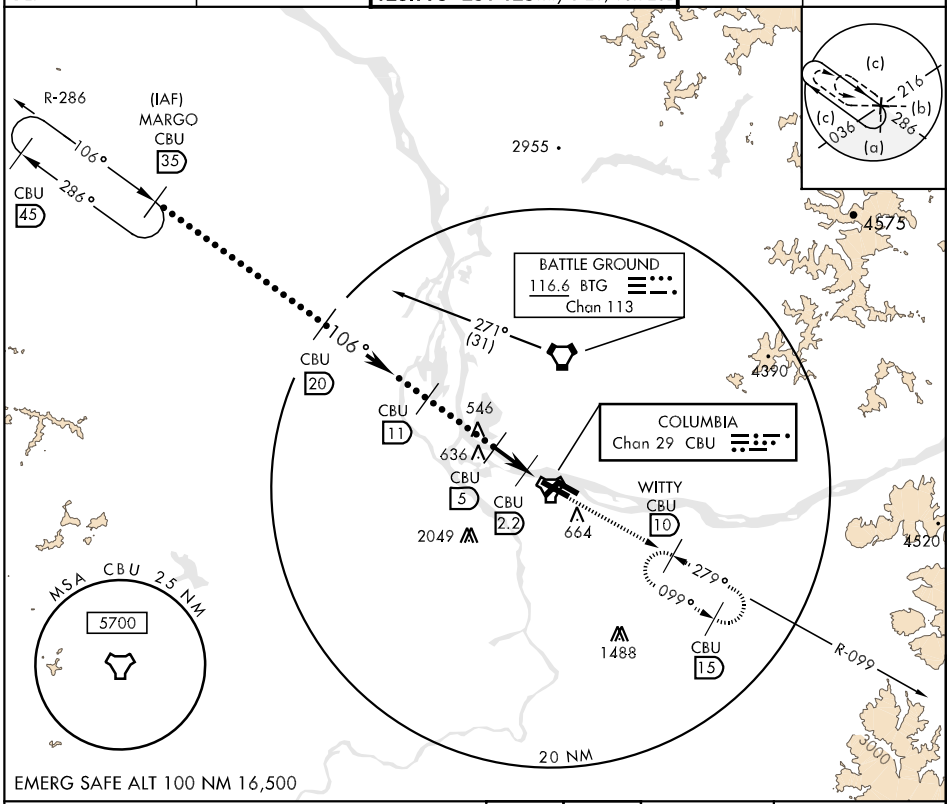
TACAN CBU Chan 29	APCH CRS 106°	Rwy ldg 11,000 TDZE 24 Arpt Elev 30	JAL-330 [USAF]	PORTLAND INTL (KPDX)

* When ALS inop, increase CAT C RVR to 50 and vis to 1 mile.

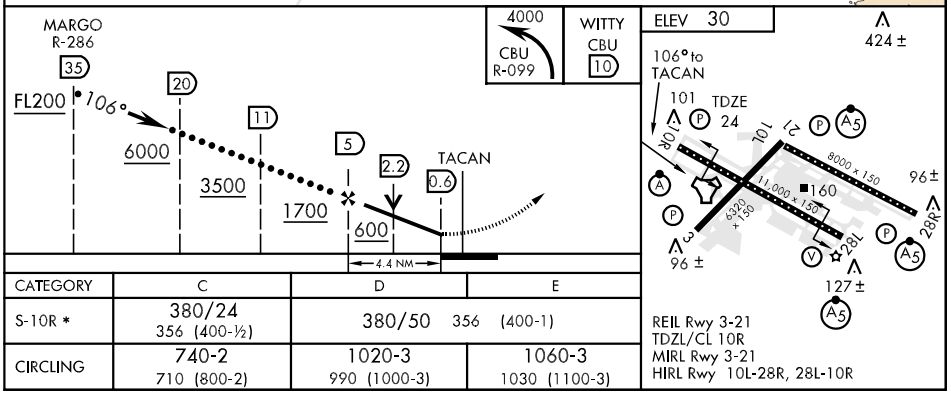
ALSF-2

MISSED APPROACH: Climb to 4000 via CBU TACAN R-099 to WITTY/CBU 10 DME and hold.

ATIS	PORTLAND APP CON	PORTLAND TOWER	GND CON	CLNC DEL
ARR 128.35 269.9 DEP 120.625 239.25	124.35 299.2	118.7 257.8 Rwy 10L-28R 123.775 251.125 Rwy 3-21, 10R-28L	121.9 348.6	120.125 318.1



EMERG SAFE ALT 100 NM 16,500



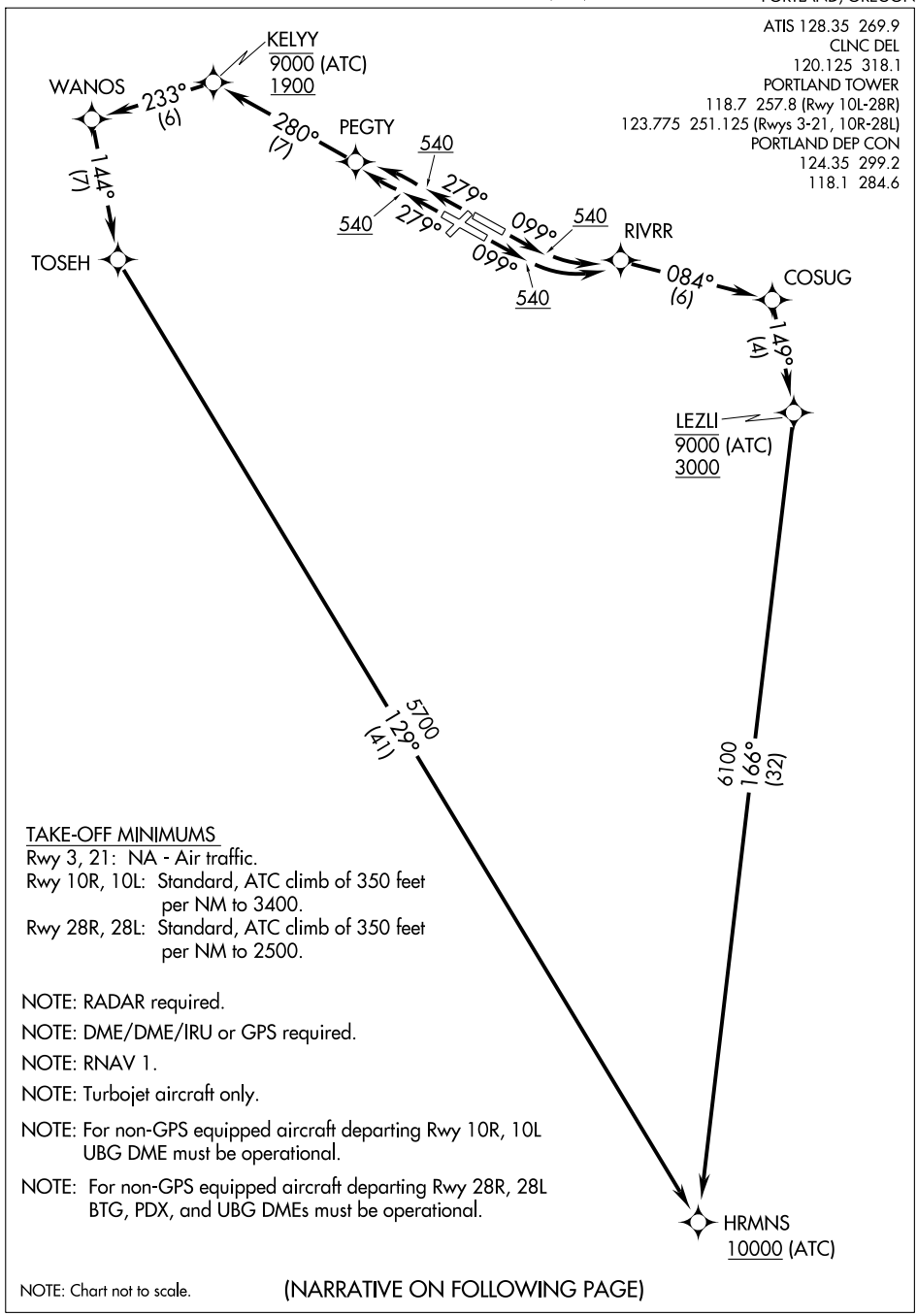
CATEGORY	C	D	E
S-10R *	380/24 356 (400-½)	380/50 356 (400-1)	
CIRCLING	740-2 710 (800-2)	1020-3 990 (1000-3)	1060-3 1030 (1100-3)

HRMNS ONE DEPARTURE (RNAV)

SL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON

ATIS 128.35 269.9
CLNC DEL
120.125 318.1
PORTLAND TOWER
118.7 257.8 (Rwy 10L-28R)
123.775 251.125 (Rwys 3-21, 10R-28L)
PORTLAND DEP CON
124.35 299.2
118.1 284.6



TAKE-OFF MINIMUMS

Rwy 3, 21: NA - Air traffic.
Rwy 10R, 10L: Standard, ATC climb of 350 feet per NM to 3400.
Rwy 28R, 28L: Standard, ATC climb of 350 feet per NM to 2500.

NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.

NOTE: Turbojet aircraft only.

NOTE: For non-GPS equipped aircraft departing Rwy 10R, 10L UBG DME must be operational.

NOTE: For non-GPS equipped aircraft departing Rwy 28R, 28L BTG, PDX, and UBG DMEs must be operational.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

HRMNS ONE DEPARTURE (RNAV) SL-330 (FAA)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10R: Climb heading 099° to 540 feet, then left turn direct RIVRR, and via 084° track to COSUG, and via 149° track to cross LEZLI at or below 9000 (ATC)/3000, then via 166° track to HRMNS, cross HRMNS at or above 10000 (ATC), thence....

TAKE-OFF RUNWAY 10L: Climb heading 099° to 540 feet, then left turn direct RIVRR, and via 084° track to COSUG, and via 149° track to cross LEZLI at or below 9000 (ATC)/3000, then via 166° track to HRMNS, cross HRMNS at or above 10000 (ATC), thence....

TAKE-OFF RUNWAY 28R: Climb heading 279° to 540 feet, then left turn direct PEGTY, and via 280° track to cross KELYY at or below 9000 (ATC)/1900, then via track 233° to WANOS, and via 144° track to TOSEH, and via 129° track to HRMNS, cross HRMNS at or above 10000 (ATC), thence....

TAKE-OFF RUNWAY 28L: Climb heading 279° to 540 feet, then right turn direct PEGTY, and via 280° track to cross KELYY at or below 9000 (ATC)/1900, then via track 233° to WANOS, and via 144° track to TOSEH, and via 129° track to HRMNS, cross HRMNS at or above 10000 (ATC), thence....

....maintain assigned altitude, expect filed altitude 10 minutes after departure.

TAKE-OFF OBSTACLE NOTES

Rwy 10L: Rising terrain and vehicle on road beginning 7′ from DER, 376′ left of centerline, up to 17′ AGL/60′ MSL.
Rwy 10R: Pole 1996′ from DER, 758′ right of centerline, 54′ AGL/74′ MSL
Rwy 28L: Trees 1873′ from DER, 836′ left of centerline, 50′ AGL/88′ MSL.
Rwy 28R: Multiple signs, poles, and vehicle on road beginning 876′ from DER, 654′ right of centerline, up to 27′ AGL/69′ MSL.

NW-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-VDG	APP CRS	Rwy ldg	8000
111.3	099°	TDZE	30
Chan 50		Apt Elev	30

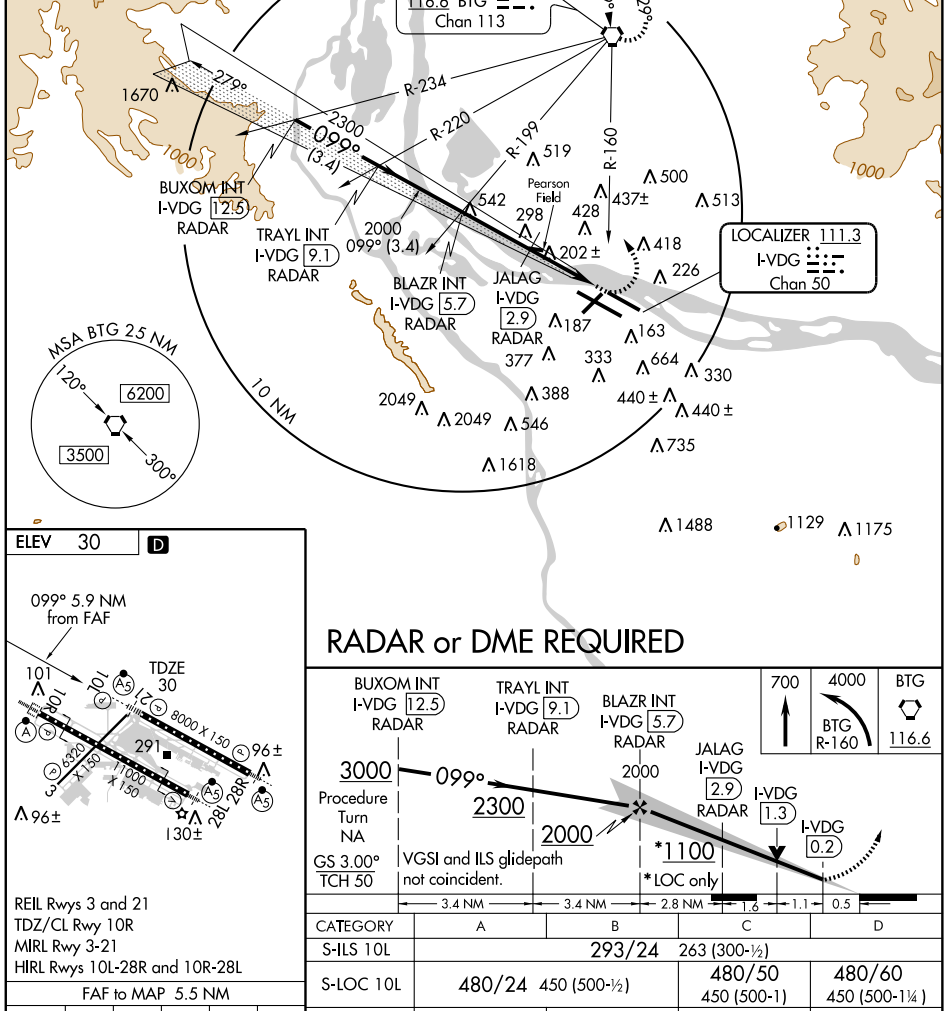
ILS or LOC RWY 10L

PORTLAND INTL (PDX)

MALSR

MISSED APPROACH: Climb to 700, then climbing left turn to 4000 via BTG R-160 to BTG VORTAC and hold.

ATIS	PORTLAND APP CON*	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



ELEV 30	D

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

FAF to MAP 5.5 NM					
Knots	60	90	120	150	180
Min:Sec	5:30	3:40	2:45	2:12	1:50

RADAR or DME REQUIRED

CATEGORY	A	B	C	D
S-ILS 10L	293/24 263 (300-½)			
S-LOC 10L	480/24 450 (500-½)		480/50 450 (500-1)	480/60 450 (500-1¼)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-PDX	APP CRS	Rwy ldg 11000
110.5	101°	TDZE 24
Chan 42		Apt Elev 30

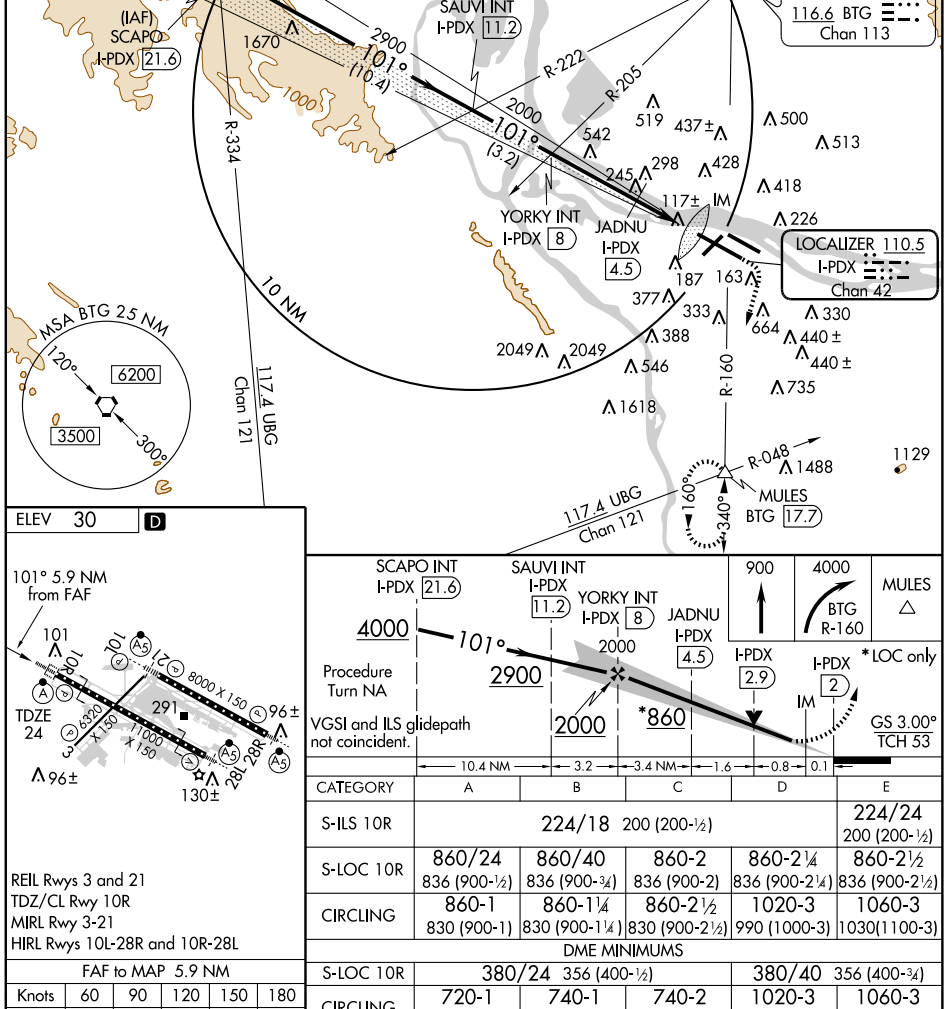
ILS or LOC RWY 10R
PORTLAND INTL (PDX)

For inoperative ALSF-2 increase S-ILS Cat E visibility to RVR 4000.
For inoperative ALSF-2 increase S-LOC Cat E visibility to 3 miles.
For inoperative ALSF-2 increase DME minimums S-LOC 10R Cat E visibility to RVR 6000.

ALSF-2

MISSED APPROACH: Climb to 900, then climbing right turn to 4000 via BTG R-160 to MULES INT/BTG VORTAC 17.7 DME and hold.

ATIS	PORTLAND APP CON*	PORTLAND TOWER		GND CON	CLNC DEL
		Rwy 10L-28R	Rwys 3-21, 10R-28L		
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



ELEV 30 D

CATEGORY	A	B	C	D	E
S-ILS 10R	224/18 200 (200-½)				224/24 200 (200-½)
S-LOC 10R	860/24 836 (900-½)	860/40 836 (900-¾)	860-2 836 (900-2)	860-2¼ 836 (900-2¼)	860-2½ 836 (900-2½)
CIRCLING	860-1 830 (900-1)	860-1¼ 830 (900-1¼)	860-2½ 830 (900-2½)	1020-3 990 (1000-3)	1060-3 1030(1100-3)
DME MINIMUMS					
S-LOC 10R	380/24 356 (400-½)			380/40 356 (400-¾)	
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)	1060-3 1030(1100-3)

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-JMJ	APP CRS	Rwy ldg	11000
110.5	279°	TDZE	23
Chan 42		Apt Elev	30

ILS or LOC RWY 28L

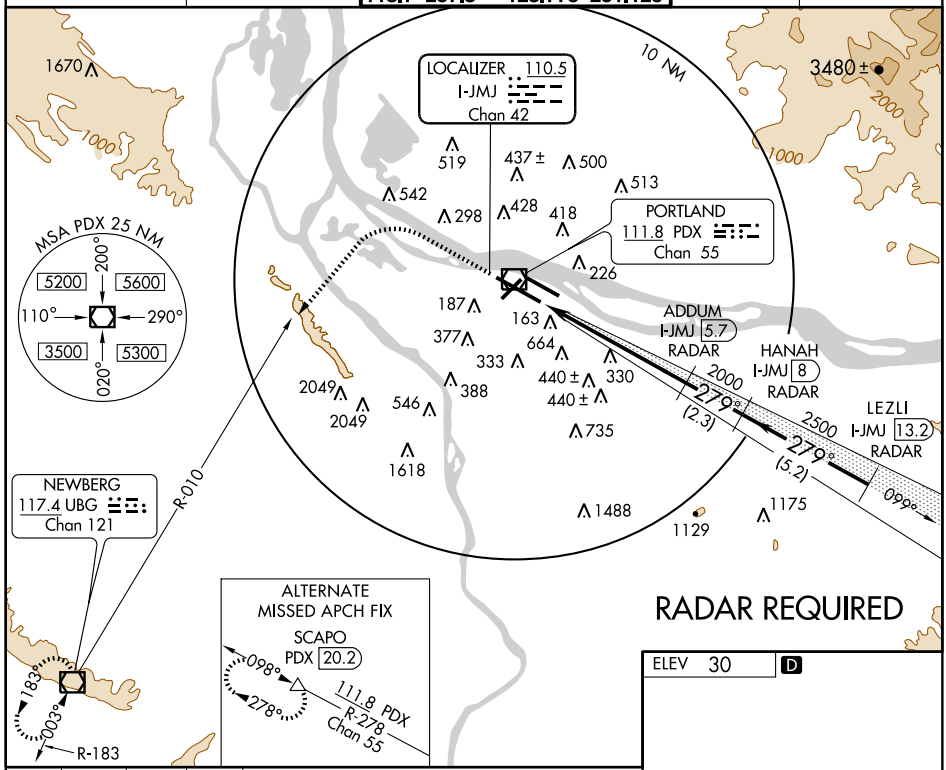
PORTLAND INTL (PDX)

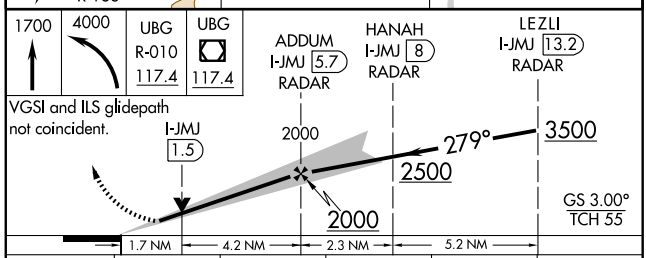
RADAR or DME required. For inoperative MALSR, increase S-ILS visibility to RVR 5000 all Cats and S-LOC Cat E visibility to 2 miles. Autopilot coupled approach NA below 580.

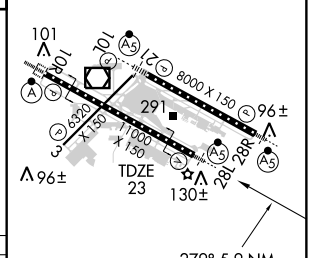
MALSR

MISSED APPROACH: Climb to 1700 then climbing left turn to 4000 via UBG R-010 to UBG VOR/DME and hold.

ATIS	PORTLAND APP CON ★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







CATEGORY	A	B	C	D	E
S-ILS-28L	306/24 283 (300-½)				
S-LOC-28L	620/24 597 (600-½)		620/50 597 (600-1)	620/60 597(600-1¼)	620-1½ 597(600-1½)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)	1060-3 1030(1100-3)

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NW-1, 03 JUN 2010 to 01 JUL 2010

ILS or LOC RWY 28R
PORTLAND INTL (PDX)

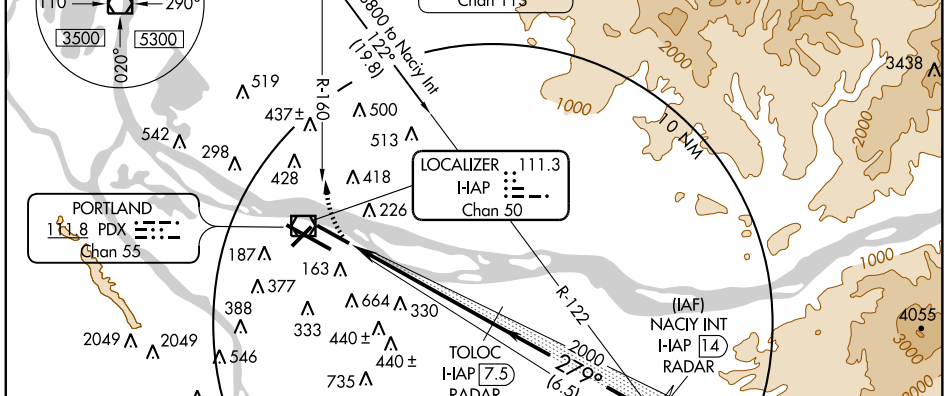
LOC/DME I-IAP	APP CRS	Rwy ldg	8000
111.3	279°	TDZE	30
Chan 50		Apt Elev	30

Inoperative table does not apply to S-ILS all Cats.
For inoperative MALSR increase S-LOC Cat A and B visibility to 1.
Radar or DME required.

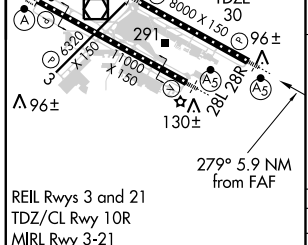
MALSR

MISSED APPROACH: Climbing right turn to 4000 via BTG R-160 to BTG VORTAC and hold.

ATIS	PORTLAND APP CON★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



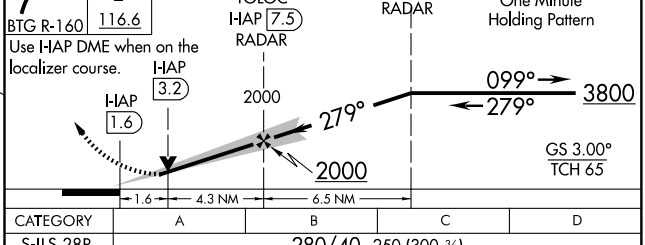
ELEV 30 D



279° 5.9 NM from FAF

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

FAF to MAP 5.9 NM					
Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58



CATEGORY	A	B	C	D
S-ILS 28R	280/40 250 (300-¾)			
S-LOC 28R	600/40 570 (600-¾)		600/50 570 (600-1)	600/60 570 (600-1¼)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

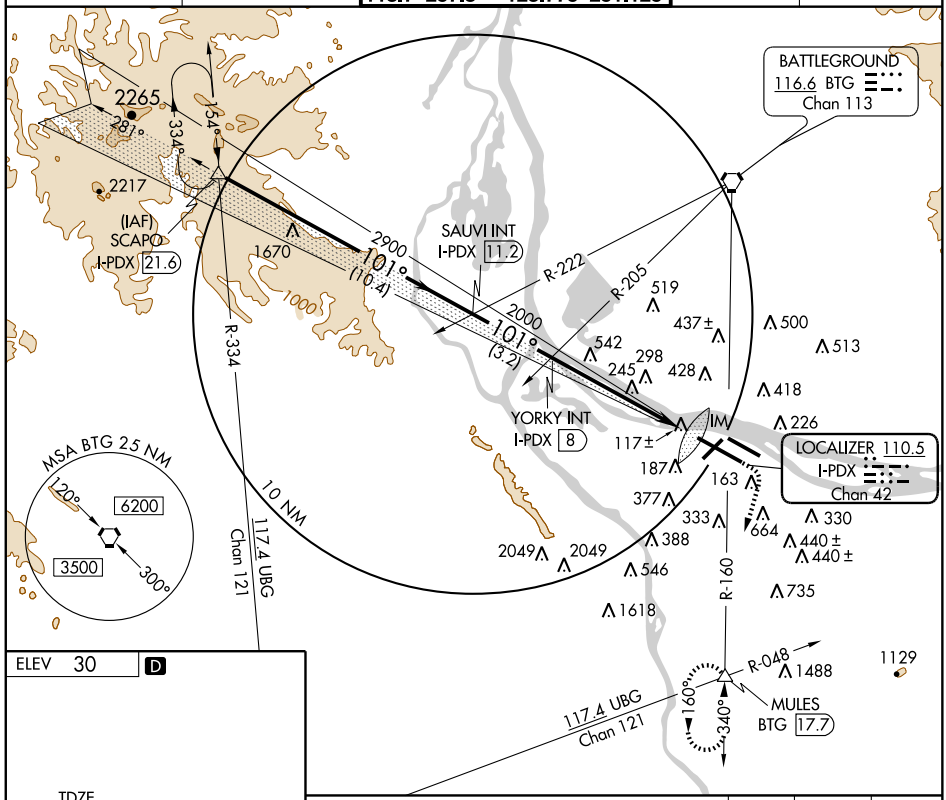
LOC/DME I-PDX	APP CRS	Rwy ldg 11000
110.5	101°	TDZE 24
Chan 42		Apt Elev 30

ILS RWY 10R (CAT II)
PORTLAND INTL (PDX)

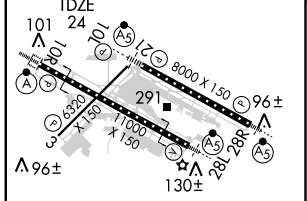
ALSF-2

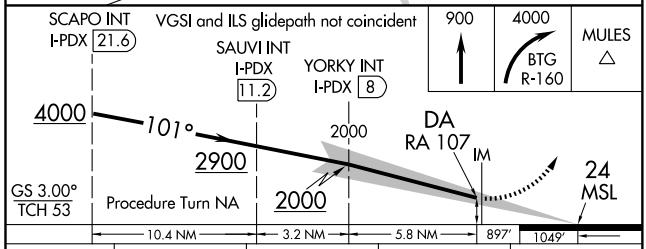
MISSED APPROACH: Climb to 900, then climbing right turn to 4000 via BTG R-160 to MULES Int/BTG VORTAC 17.7 DME and hold.

ATIS	PORTLAND APP CON★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



ELEV 30 D





CATEGORY	A	B	C	D
S-ILS 10R	RA 107/12 100 DA 124			

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

CATEGORY II ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NW-1, 03 JUN 2010 to 01 JUL 2010

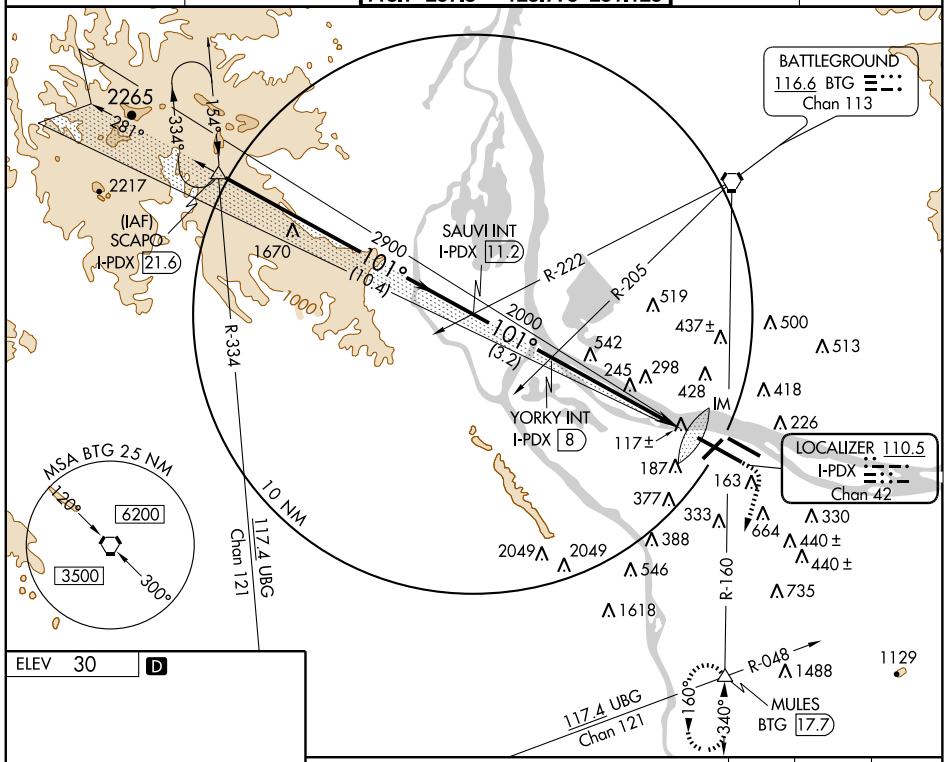
LOC/DME I-PDX	APP CRS	Rwy ldg	11000
110.5	101°	TDZE	24
Chan 42		Apt Elev	30

ILS RWY 10R (CAT III)
PORTLAND INTL (PDX)

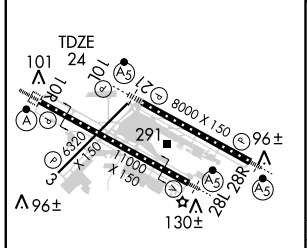
ALSF-2

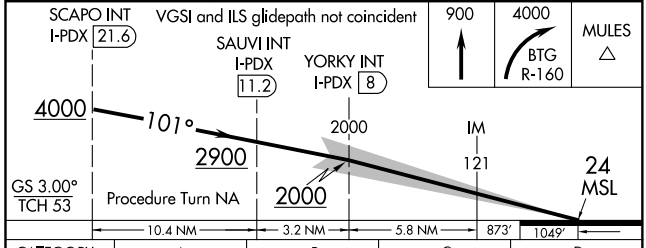
MISSED APPROACH: Climb to 900, then climbing right turn to 4000 via BTG R-160 to MULES Int/BTG VORTAC 17.7 DME and hold.

ATIS	PORTLAND APP CON★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



ELEV 30 D





CATEGORY	A	B	C	D
S-ILS 10R		CAT III a	RVR 07	
S-ILS 10R		CAT III b	RVR 06	
S-ILS 10R		CAT III c	NA	

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

CATEGORY III ILS - SPECIAL AIRCREW & AIRCRAFT CERTIFICATION REQUIRED

NW-1, 03 JUN 2010 to 01 JUL 2010

LAVAA TWO DEPARTURE (RNAV)

ATIS 128.35 269.9
CLNC DEL
120.125 318.1
PORTLAND TOWER
118.7 257.8 (Rwy 10L-28R)
123.775 251.125 (Rwys 3-21, 10R-28L)
PORTLAND DEP CON ★
124.35 299.2 (280°-099°)

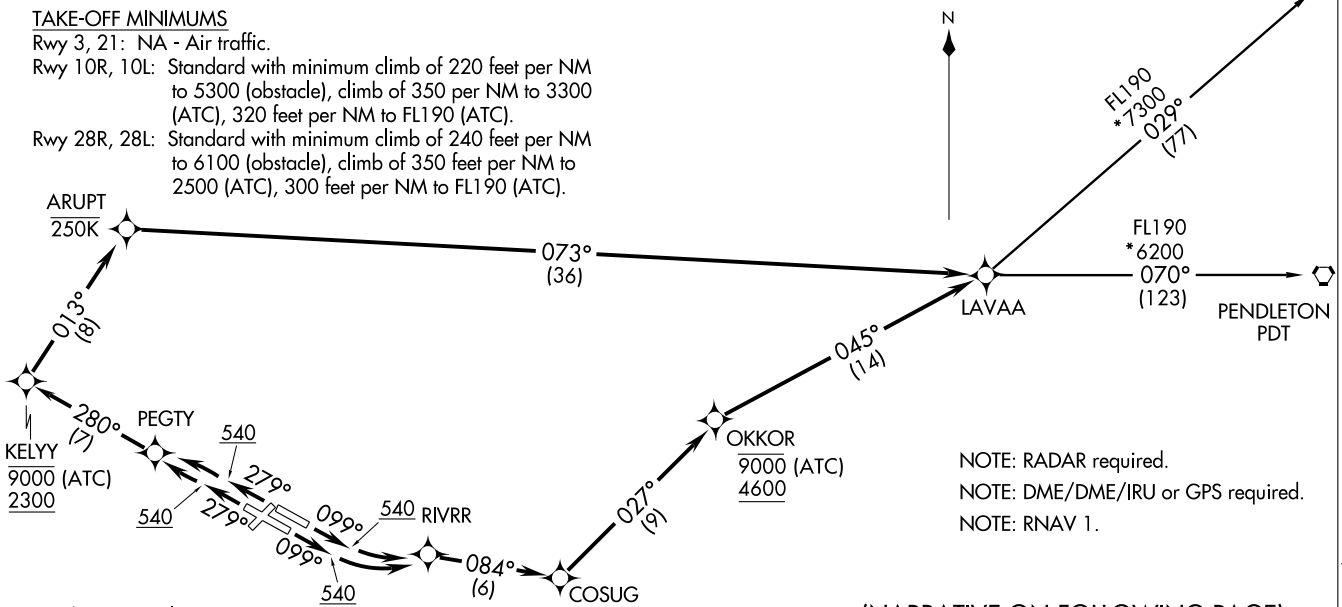
NOTE: For non-GPS equipped aircraft departing Rwy 10R, 10L
UBG and BTG DMEs must be operational for Yakima Transition.
For non-GPS equipped aircraft departing Rwy 28R, 28L
UBG, BTG and MWH DMEs must be operational for the Pendleton Transition.

TAKE-OFF OBSTACLE NOTES

Rwy 10L: Rising terrain and vehicles on road beginning 7′ from DER, 376′ left of centerline, up to 17′ AGL/60′ MSL.
Rwy 10R: Pole 1996′ from DER, 758′ right of centerline, 54′ AGL/74′ MSL.
Rwy 28L: Trees 1873′ from DER, 836′ left of centerline, 50′ AGL/88 MSL.
Rwy 28R: Multiple signs, poles, and vehicle on road beginning 876′ from DER, 654′ right of centerline, up to 27′ AGL/69′ MSL.

TAKE-OFF MINIMUMS

Rwy 3, 21: NA - Air traffic.
Rwy 10R, 10L: Standard with minimum climb of 220 feet per NM to 5300 (obstacle), climb of 350 per NM to 3300 (ATC), 320 feet per NM to FL190 (ATC).
Rwy 28R, 28L: Standard with minimum climb of 240 feet per NM to 6100 (obstacle), climb of 350 feet per NM to 2500 (ATC), 300 feet per NM to FL190 (ATC).



NOTE: RADAR required.
NOTE: DME/DME/IRU or GPS required.
NOTE: RNAV 1.

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10R: Climb heading 099° to 540, then left turn direct RIVRR, then via track 084° to COSUG, then via track 027° to cross OKKOR at or below 9000/4600, then via track 045° to LAVAA, thence....

TAKE-OFF RUNWAY 10L: Climb heading 099° to 540, then left turn direct RIVRR, then via track 084° to COSUG, then via track 027° to cross OKKOR at or below 9000/4600, then via track 045° to LAVAA, thence....

TAKE-OFF RUNWAY 28R: Climb heading 279° to 540, then left turn direct PEGTY, then via track 280° to cross KELYY at or below 9000/2300, then right turn via track 013° to ARUPT, then via track 073° to LAVAA, thence....

TAKE-OFF RUNWAY 28L: Climb heading 279° to 540, then right turn direct PEGTY, then via track 280° to cross KELYY at or below 9000/2300, then right turn via track 013° to ARUPT, then via track 073° to LAVAA, thence....

....via (Transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

PENDLETON TRANSITION (LAVAA2.PDT)

YAKIMA TRANSITION (LAVAA2.YKM)

NW-1. 03 JUN 2010 to 01 JUL 2010

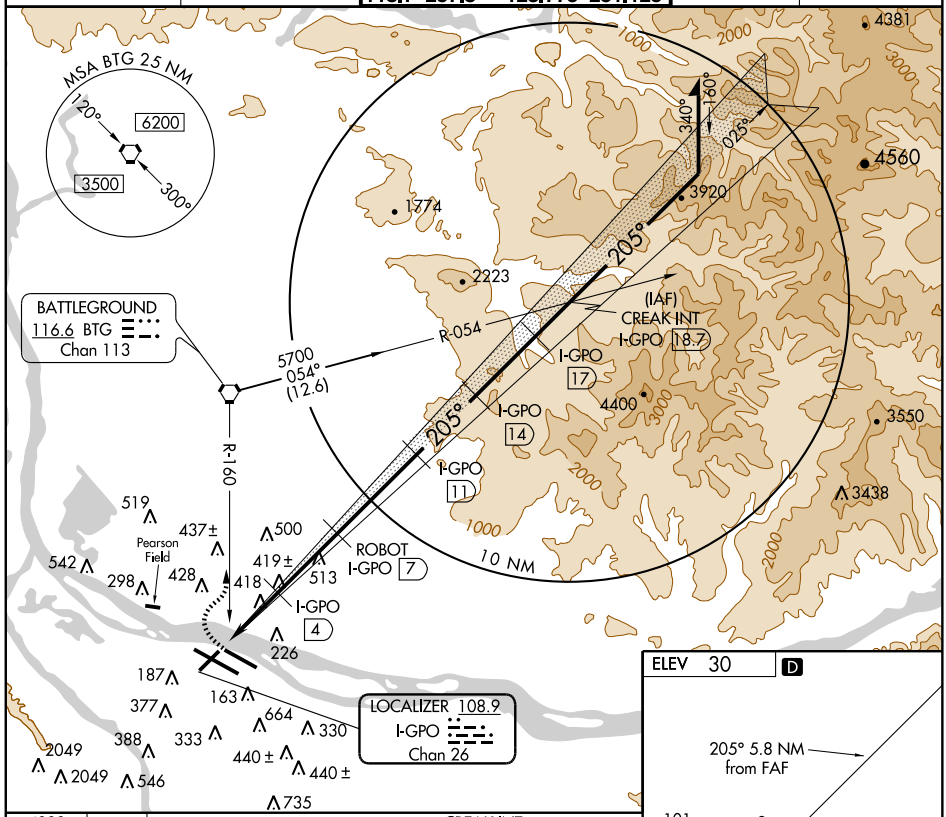
LOC/DME I-GPO	APP CRS	Rwy ldg	6320
108.9	205°	TDZE	23
Chan 26		Apt Elev	30

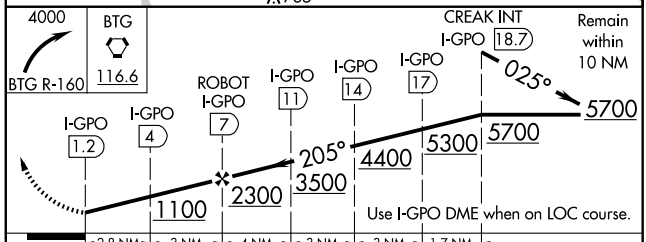
LOC/DME RWY 21

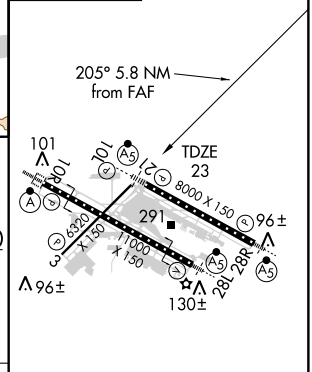
PORTLAND INTL (PDX)

MISSED APPROACH: Climbing right turn to 4000 via BTG R-160 to BTG VORTAC.

ATIS	PORTLAND APP CON★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







CATEGORY	A	B	C	D
S-21	680-1 657 (700-1)		680-1¾ 657 (700-1¾)	680-2 657 (700-2)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)

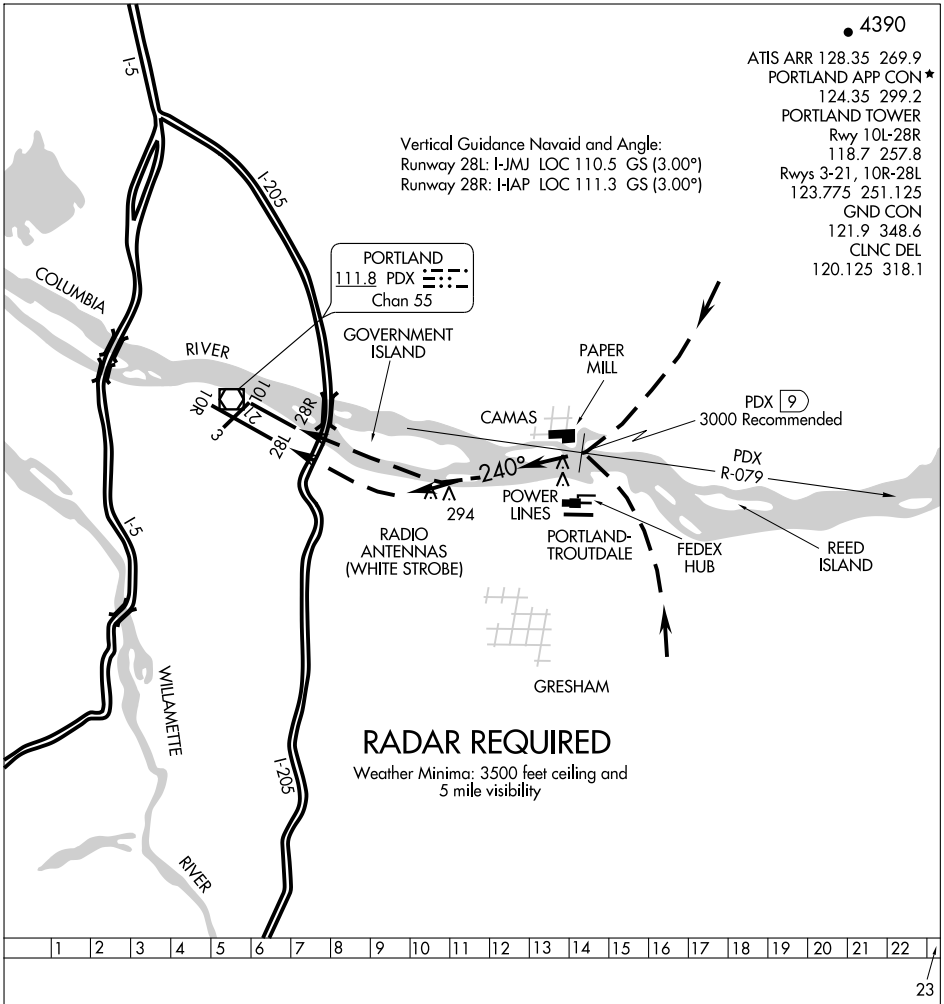
REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

NW-1, 03 JUN 2010 to 01 JUL 2010

MILL VISUAL RWY 28L/R

AL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON



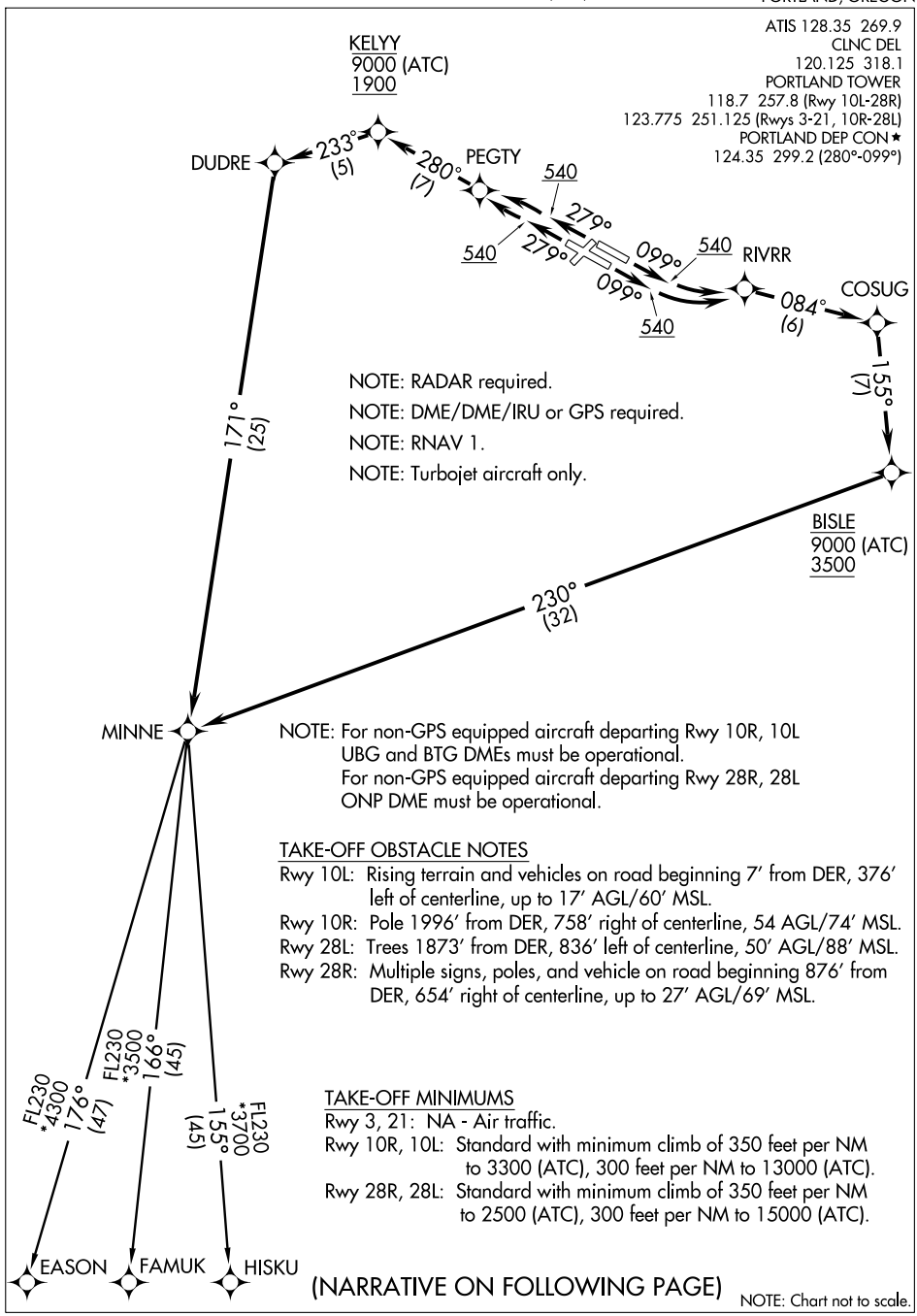
When visual approaches to Runways 28L/R are in progress, clearances to aircraft will be issued utilizing the following phraseology: "(IDENT) CLEARED FOR MILL VISUAL RUNWAY 28 LEFT/RIGHT APPROACH."

MINNE TWO DEPARTURE (RNAV)

SL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON

ATIS 128.35 269.9
CLNC DEL
120.125 318.1
PORTLAND TOWER
118.7 257.8 (Rwy 10L-28R)
123.775 251.125 (Rwys 3-21, 10R-28L)
PORTLAND DEP CON ★
124.35 299.2 (280°-099°)



NOTE: RADAR required.

NOTE: DME/DME/IRU or GPS required.

NOTE: RNAV 1.

NOTE: Turbojet aircraft only.

NOTE: For non-GPS equipped aircraft departing Rwy 10R, 10L UBG and BTG DMEs must be operational.
For non-GPS equipped aircraft departing Rwy 28R, 28L ONP DME must be operational.

TAKE-OFF OBSTACLE NOTES

Rwy 10L: Rising terrain and vehicles on road beginning 7′ from DER, 376′ left of centerline, up to 17′ AGL/60′ MSL.
Rwy 10R: Pole 1996′ from DER, 758′ right of centerline, 54 AGL/74′ MSL.
Rwy 28L: Trees 1873′ from DER, 836′ left of centerline, 50′ AGL/88′ MSL.
Rwy 28R: Multiple signs, poles, and vehicle on road beginning 876′ from DER, 654′ right of centerline, up to 27′ AGL/69′ MSL.

TAKE-OFF MINIMUMS

Rwy 3, 21: NA - Air traffic.
Rwy 10R, 10L: Standard with minimum climb of 350 feet per NM to 3300 (ATC), 300 feet per NM to 13000 (ATC).
Rwy 28R, 28L: Standard with minimum climb of 350 feet per NM to 2500 (ATC), 300 feet per NM to 15000 (ATC).

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10R: Climb heading 099° to 540, then left turn direct to RIVRR, then via track 084° to COSUG, then via track 155° to cross BISLE at or below 9000/3500, then via track 230° to MINNE, thence....

TAKE-OFF RUNWAY 10L: Climb heading 099° to 540, then left turn direct RIVRR, then via track 084° to COSUG, then via track 155° to cross BISLE at or below 9000/3500, then via track 230° to MINNE, thence....

TAKE-OFF RUNWAY 28R: Climb heading 279° to 540, then left turn direct PEGTY, then via track 280° to cross KELYY at or below 9000/1900, then via track 233° to DUDRE, then via track 171° to MINNE, thence....

TAKE-OFF RUNWAY 28L: Climb heading 279° to 540, then right turn direct PEGTY, then via track 280° to cross KELYY at or below 9000/1900, then via track 233° to DUDRE, then via track 171° to MINNE, thence....

....via (Transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

EASON TRANSITION (MINNE2.EASON)

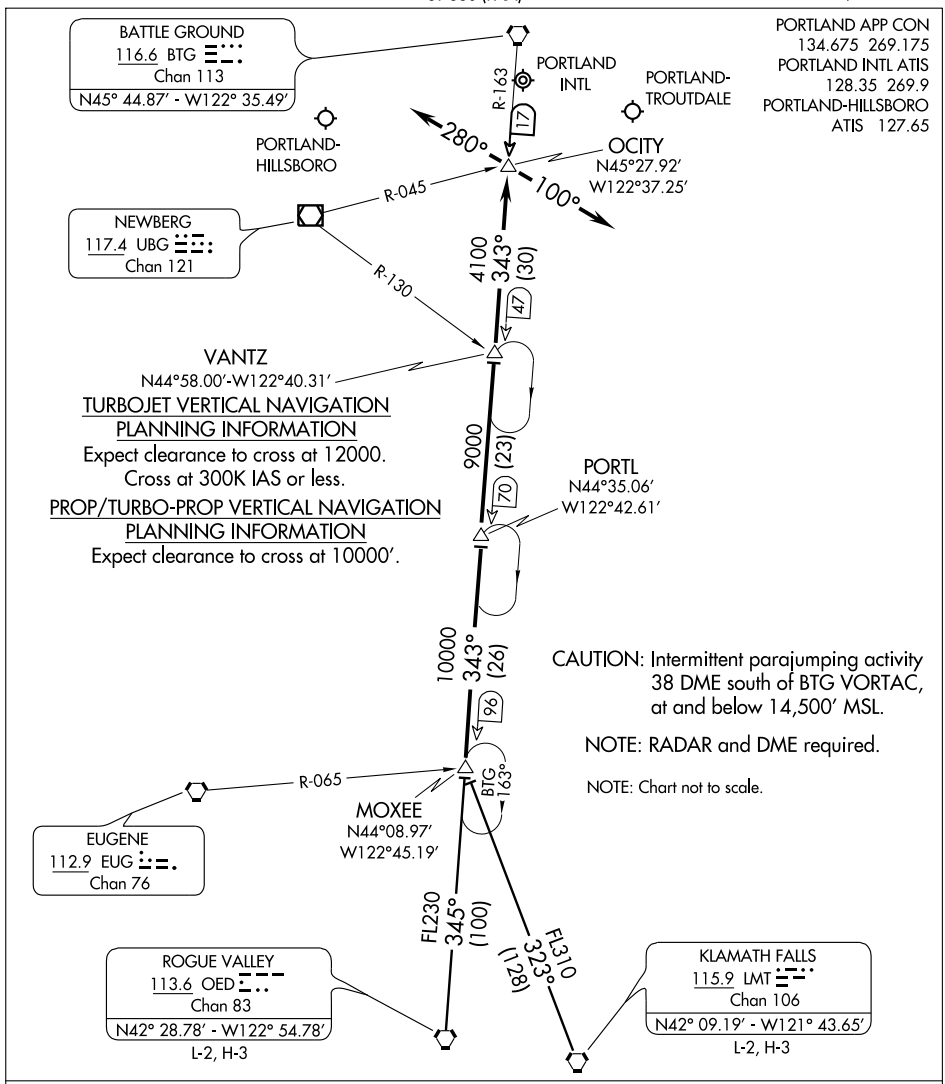
FAMUK TRANSITION (MINNE2.FAMUK)

HISKU TRANSITION (MINNE2.HISKU)

MOXEE SIX ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



KLAMATH FALLS TRANSITION (LMT.MOXEE6): From over LMT VORTAC via LMT R-323 to MOXEE INT. Thence . . . .

ROGUE VALLEY TRANSITION (OED.MOXEE6): From over OED VORTAC via OED R-345 to MOXEE INT. Thence . . . .

. . . . From over MOXEE INT via BTG R-163 to OCITY INT. Thence via:

Landing East - Depart OCITY INT heading 280° for vectors to final approach course.

Landing West - Depart OCITY INT heading 100° for vectors to final approach course.

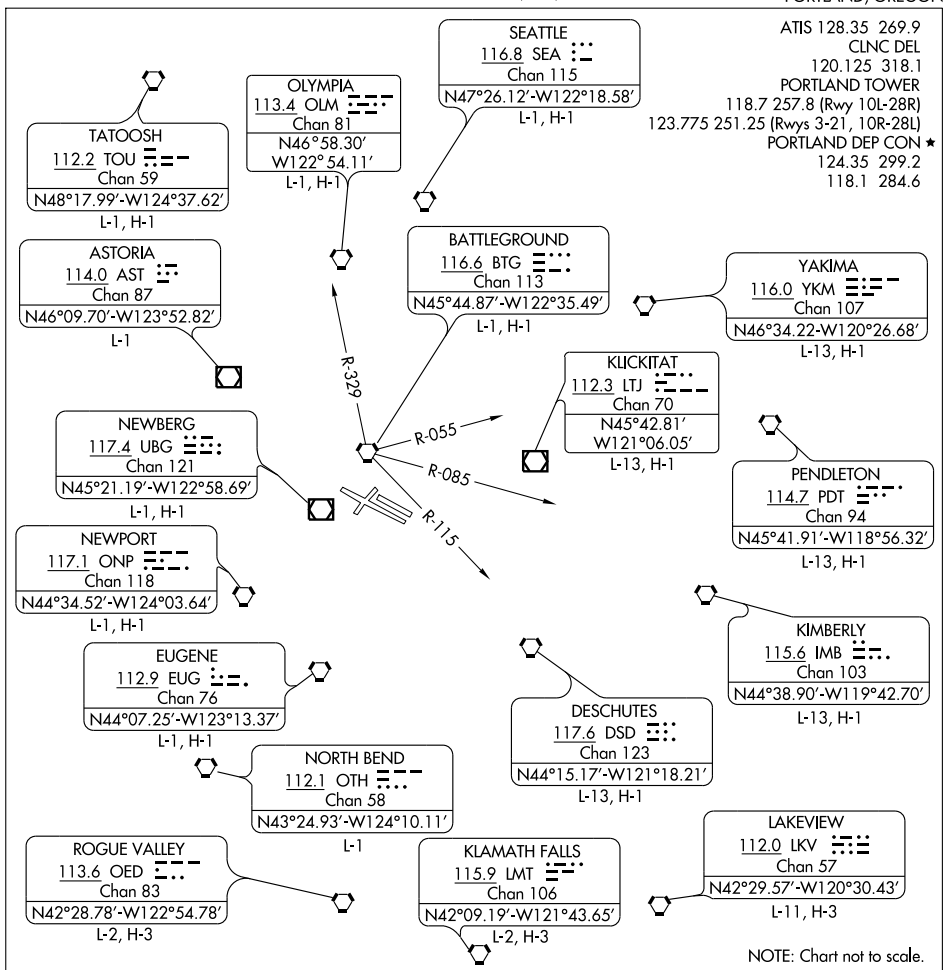
LOST COMMUNICATIONS: After OCITY INT, proceed direct BTG VORTAC.

PORTLAND SIX DEPARTURE

SL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON

ATIS 128.35 269.9
CLNC DEL
120.125 318.1
PORTLAND TOWER
118.7 257.8 (Rwy 10L-28R)
123.775 251.25 (Rwys 3-21, 10R-28L)
PORTLAND DEP CON ★
124.35 299.2
118.1 284.6



NOTE: Chart not to scale.

TAKE-OFF MINIMUMS:
Rwy 3: Standard with minimum climb of 400′ per NM to 2700.
Rwy 21: Standard with minimum climb of 450′ per NM to 2900.
Rwy 10R: Standard with minimum climb of 375′ per NM to 2700.
Rwy 10L: Standard with minimum climb of 350′ per NM to 2700.
Rwy 28L: Standard with minimum climb of 375′ per NM to 2900.
Rwy 28R: Standard with minimum climb of 350′ per NM to 2900.

NOTE: RADAR REQUIRED.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 3: Climb heading 025° to 600 thence....
TAKE-OFF RWY 10L: Climb heading 099° to 500 thence...
TAKE-OFF RWY 10R: Climb heading 099° to 500 thence....
TAKE-OFF RWY 28L: Climb heading 279° to 800 thence....
TAKE-OFF RWY 28R: Climb heading 279° to 800 thence....
TAKE-OFF RWY 21: Climb heading 205° to 500 thence....
....via assigned heading expect radar vectors to assigned route/fix. Maintain 3000, expect filed altitude five minutes after departures.

LOST COMMUNICATIONS: If no contact with ATC within 10 NM of airport, continue climb to assigned altitude and proceed direct BTG VORTAC. Continue climb via BTG R-329 within 10 NM to cross BTG VORTAC: BTG R-355 clockwise R-055 or R-085 clockwise R-115 at or above 5000 feet. Continue climb on course.

TAKE-OFF OBSTACLE NOTES:
Rwy 3: Signs, tower, trees, and vehicle on road beginning 468′ from DER, 28′ left of centerline, up to 100′ AGL/449′ MSL.
Poles, trees, and vehicle on road beginning 609′ from DER, 7′ left of centerline, up to 100′ AGL/416′ MSL.
Rwy 10L: Rising terrain and vehicle on road beginning 7′ from DER, 376′ left of centerline, up to 17′ AGL/60′ MSL.
Rwy 10R: Pole 1996′ from DER, 758′ right of centerline, 54′ AGL/74′ MSL.
Rwy 21: Trees beginning 1319′ from DER, 155′ right of centerline, up to 100′ AGL/318′ MSL.
Poles and trees beginning 353′ from DER, 36′ left of centerline, up to 100′ AGL/317′ MSL.
Rwy 28L: Trees 1873′ from DER, 836′ left of centerline, 50′ AGL/88′ MSL.
Rwy 28R: Multiple signs, poles, and vehicle on road beginning 876′ from DER, 654′ right of centerline, up to 27′ AGL/69′ MSL.

RIVER SIX DEPARTURE

SL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON

ATIS 128.35 269.9
CLNC DEL
120.125 318.1
PORTLAND DEP CON★
124.35 299.2
118.1 284.6

TATOOSH
112.2 TOU
Chan 59
N48°17.99′-W124°37.62′
L-1, H-1

SEATTLE
116.8 SEA
Chan 115
N47°26.12′-W122°18.58′
L-1, H-1

YAKIMA
116.0 YKM
Chan 107
N46°34.22′-W120°26.68′
L-13, H-1

OLYMPIA
113.4 OLM
Chan 81
N46°58.30′-W122°54.11′
L-1, H-1

WOODD
N45°39.25′
W122°46.54′

R-277

R-355

BATTLEGROUND
116.6 BTG
Chan 113
N45°44.87′-W122°35.49′
L-1, H-1

PORTLAND
111.8 PDX
Chan 55
N45°35.62′-W122°36.38′
L-1

8

11

290°

R-085

KLICKITAT
112.3 LTJ
Chan 70
N45°42.81′-W121°06.05′
L-13, H-1

CROWN
N45°32.76′
W122°21.26′

NEWBERG
117.4 UBG
Chan 121
N45°21.19′-W122°58.69′
L-1, H-1

BTG
R-145

DESCHUTES
117.6 DSD
Chan 123
N44°15.17′-W121°18.21′
L-13, H-1

EUGENE
112.9 EUG
Chan 76
N44°07.25′-W123°13.37′
L-1, H-1

ROGUE VALLEY
113.6 OED
Chan 83
N42°28.78′-W122°54.78′
L-2, H-3

NOTE: Take-off Rwy 28L/R for noise abatement intercept the PDX VOR/DME R-277 as soon as practicable.
Take-off all runways requires a climb of 350 feet per NM to 2400 feet.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAYS 10L/R: Turn left, intercept and proceed via the PDX R-085 or as assigned, expect radar vectors to assigned route. Expect filed alitutude/flight level 5 minutes after departure.

TAKE-OFF RUNWAY 21: Turn right fly heading 290° or as assigned, expect radar vectors on course. Expect filed altitude/flight level 5 minutes after departure.

TAKE-OFF RUNWAYS 28L/R: Intercept and proceed via the PDX R-277 or as assigned, expect radar vectors to assigned route. Expect filed alittude/flight level 5 minutes after departure.

LOST COMMUNICATIONS: If no contact with ATC within 10 NM of airport or leaving 3,000′, continue climb to assigned altitude and proceed direct to BTG VORTAC, thence via (assigned route). If proceeding via BTG VORTAC R-355 CW R-145, a 340 feet per NM climb is required to 13800 feet.

ALTERNATE LOST COMMUNICATIONS: When BTG VORTAC is out of service: If no contact with ATC leaving 3,000′, continue climb to assigned altitude direct UBG VOR/DME.

WAAS CH 81804 W10B	APP CRS 099°	Rwy ldg 8000 TDZE 30 Apt Elev 30

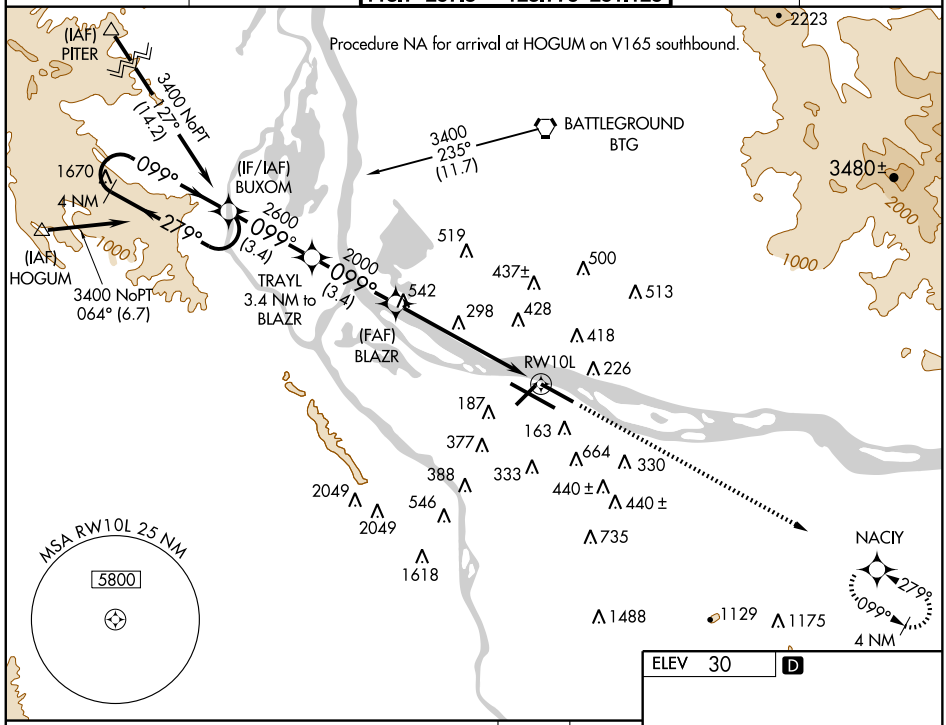
RNAV (GPS) RWY 10L
PORTLAND INTL (PDX)

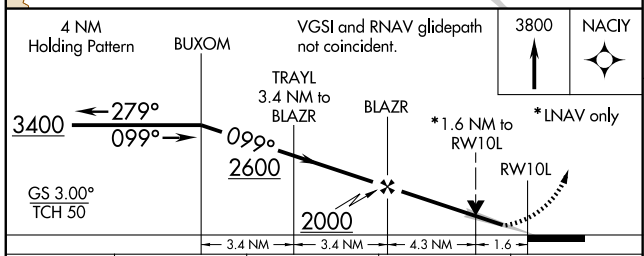
DME/DME RNP-0.3 NA.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 49°C (120°F).

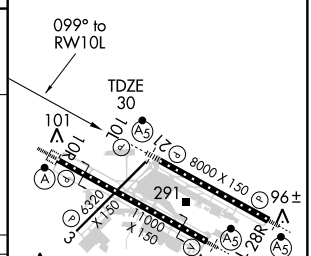
MALSR

MISSED APPROACH: Climb to 3800 direct NACIY WP and hold.

ATIS	PORTLAND APP CON*	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







CATEGORY	A	B	C	D
LPV DA	330/24 300 (300-½)			
LNAV/VNAV DA	800-2¼ 770 (800-2¼)			800-2½ 770 (800-2½)
LNAV MDA	580/24 550 (600-½)		580/50 550 (600-1)	580/60 550 (600-1¼)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 40004 W10A	APP CRS 099°	Rwy ldg 11000 TDZE 24 Apt Elev 30

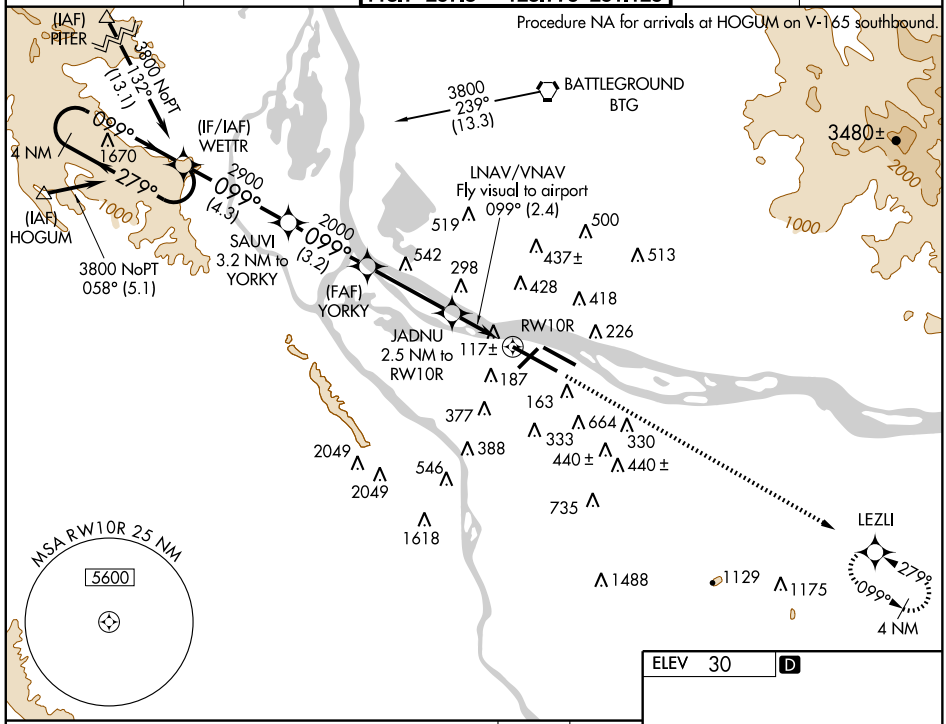
RNAV (GPS) RWY 10R
PORTLAND INTL (PDX)

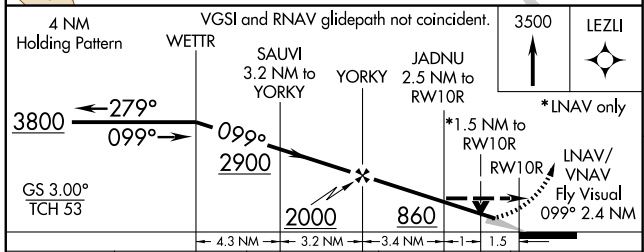
DME/DME RNP-0.3 NA. Baro-VNAV NA below -16°C (4F).
Inoperative table does not apply to LNAV/VNAV all Cats.
For inoperative ALSF-2 increase LPV visibility to RVR 6000.

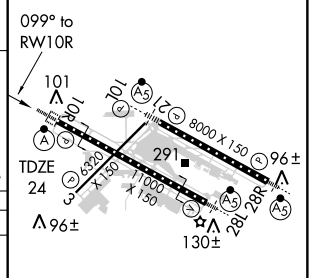
ALSF-2

MISSED APPROACH: Climb to 3500 direct LEZLI and hold.

ATIS	PORTLAND APP CON *	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







CATEGORY	A	B	C	D
LPV DA	390/40 366 (400-¾)			
LNAV/VNAV DA	660-2 636 (700-2)			
LNAV MDA	540/24 516 (600-½)		540/50 516 (600-1)	540/60 516 (600-1¼)
CIRCLING	720-5 690 (700-5)	740-5 710 (800-5)		1020-5 990 (1000-5)

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

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WAAS CH 56205 W28B	APP CRS 279°	Rwy ldg 11000 TDZE 23 Apt Elev 30

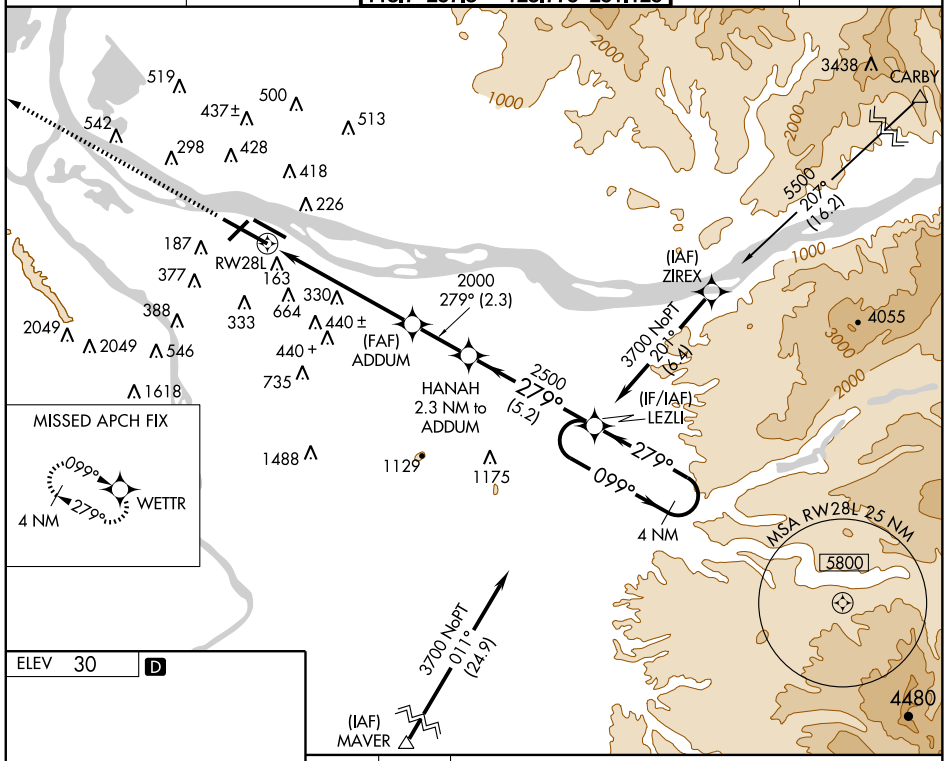
RNAV (GPS) RWY 28L
PORTLAND INTL (PDX)

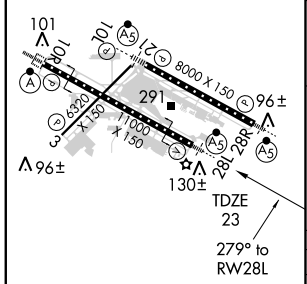
DME/DME RNP-0.3 NA.

MALSR

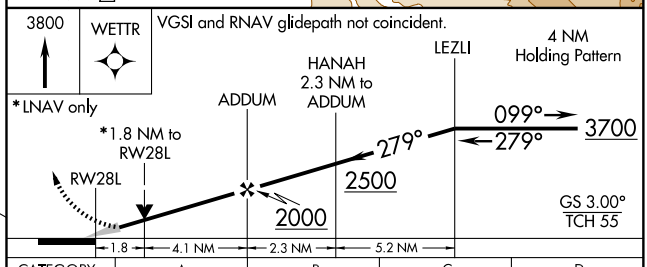
MISSED APPROACH: Climb to 3800 direct WETTR and hold.

ATIS	PORTLAND APP CON*	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1





REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L



CATEGORY	A	B	C	D
LPV DA	340/24 317 (400-½)			
LNAV MDA	660/24 637 (700-½)		660/60 637 (700-1¼)	660-1½ 637 (700-1½)
CIRCLING	720-1½ 690 (700-1½)	740-1½ 710 (800-1½)	740-2 710 (800-2)	1020-3 990 (1000-3)

WAAS CH 60905 W28A	APP CRS 279°	Rwy ldg 8000 TDZE 30 Apt Elev 30

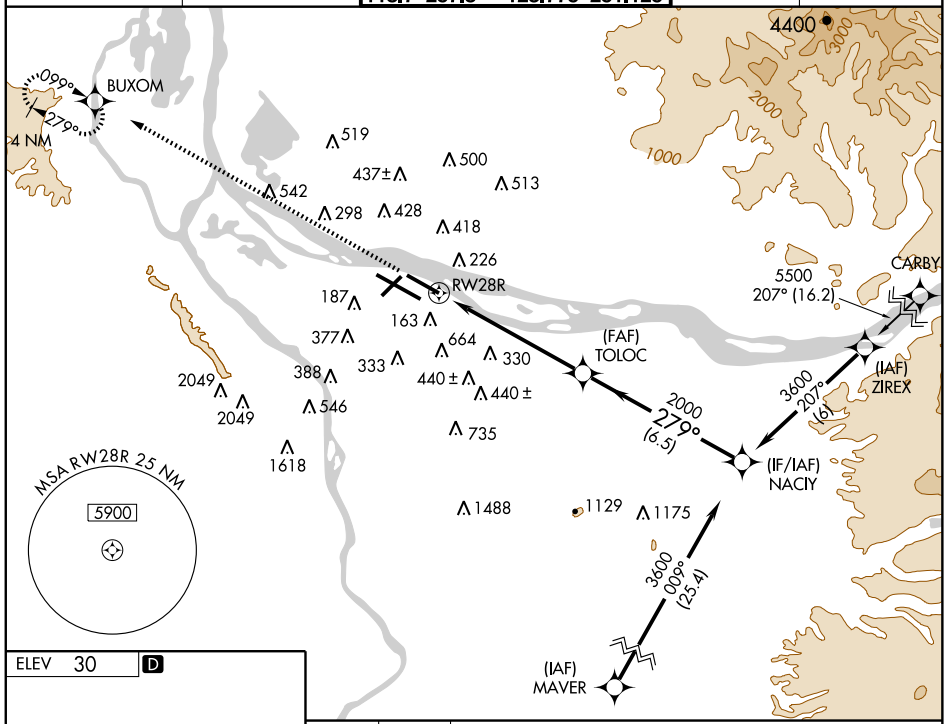
RNAV (GPS) RWY 28R
PORTLAND INTL (PDX)

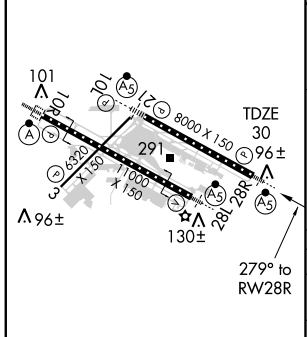
DME/DME RNP-0.3 NA. Baro-VNAV NA below -16°C (4°F).
For inoperative MALSR increase LNAV Cat A and B visibility to RVR 5000.
For inoperative MALSR increase LPV visibility to RVR 5000 all Cats.

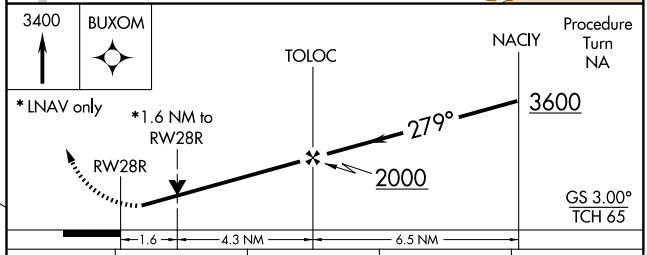
MALSR

MISSED APPROACH: Climb to 3400 direct BUXOM and hold.

ATIS	PORTLAND APP CON *	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







CATEGORY	A	B	C	D
LPV DA	320/40 290 (300-¾)			
LNAV/VNAV DA	540/60 510 (600-1¼)			
LNAV MDA	600/40 570 (600-¾)		600/50 570 (600-1)	600/60 570 (600-1¼)
CIRCLING	720-1¾ 690 (700-1¾)	740-1¾ 710 (800-1¾)	740-2 710 (800-2)	1020-3 990 (1000-3)

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

NW-1, 03 JUN 2010 to 01 JUL 2010

TACAN RWY 28L

TACAN CBU Chan 29	APCH CRS 277°	Rwy ldg 11,000 TDZE 23 Arpt Elev 30

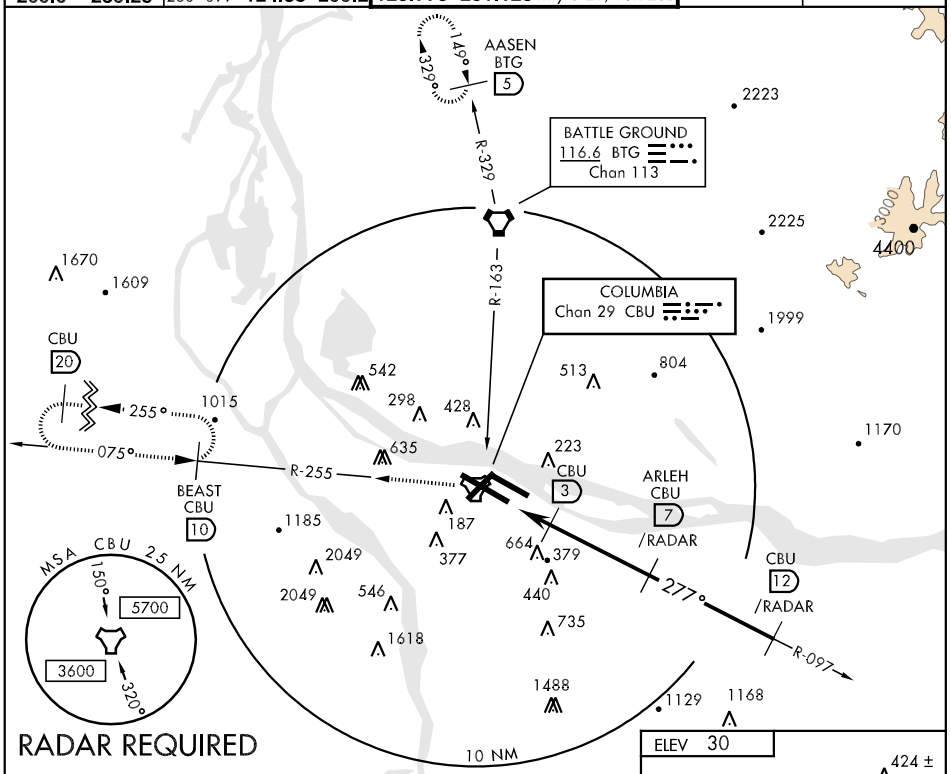
AL-330 [USAF]

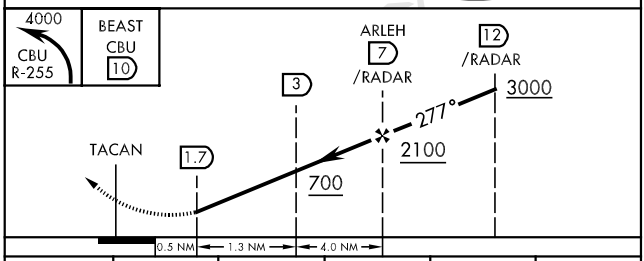
PORTLAND INTL (KPDX)

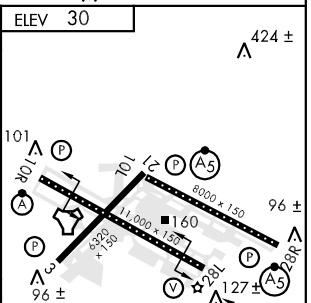
MALSR

MISSED APPROACH: Climbing left turn to 4000 via CBU R-255 to BEAST INT/CBU 10 DME and hold, or when directed by ATC climb to 4000 via BTG R-163 to BTG VORTAC then via BTG R-329 to AASEN INT and hold.

ARR ATIS DEP	PORTLAND APP CON	PORTLAND TOWER	GND CON	CLNC DEL
128.35 120.625 269.9 239.25	100°-279° 118.1 284.6 280°-099° 124.35 299.2	118.7 257.8 Rwy 10L-28R 123.775 251.125 Rwy 3-21, 10R-28L	121.9 348.6	120.125 318.1







REIL Rwy 3-21
TDZL/CL 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R , 28L-10R

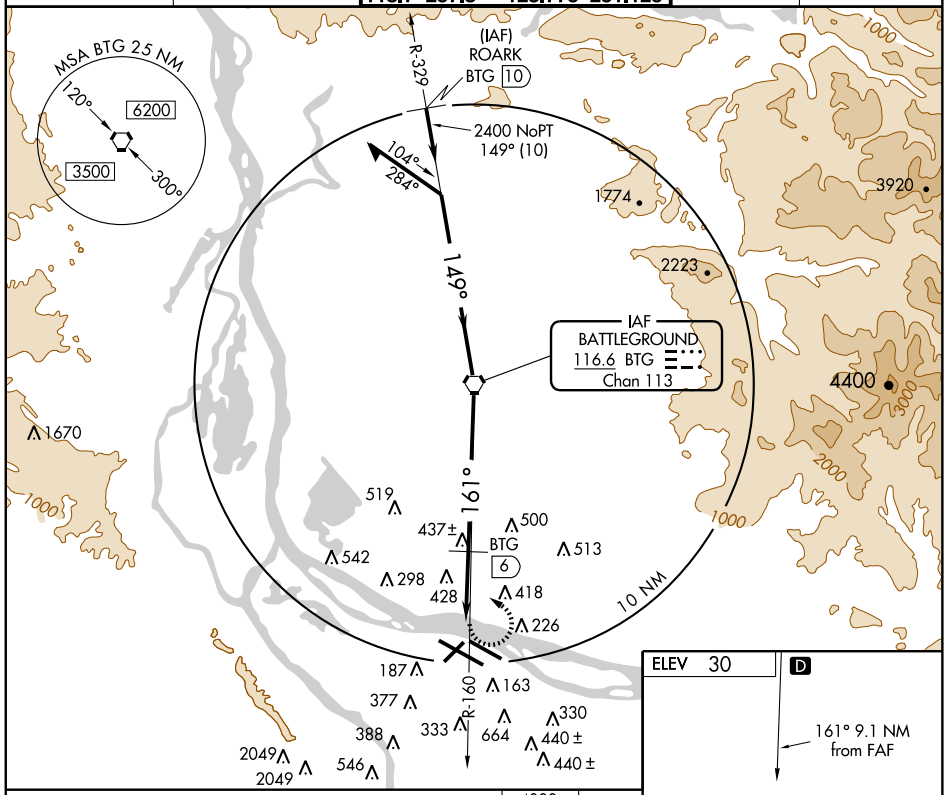
CATEGORY	A	B	C	D	E
S-28L	600/50 577 (600-1)		600-1½ 577 (600-1½)	600-1¾ 577 (600-1¾)	600-2 577 (600-2)
CIRCLING	720-1 690 (700-1)		740-2 710 (800-2)	980-3 950 (1000-3)	1060-3 1030 (1100-3)

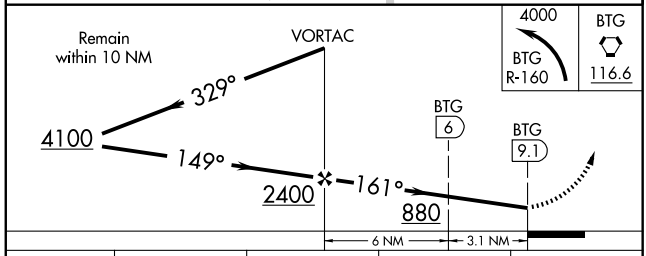
VORTAC BTG	APP CRS	Rwy ldg	N/A
116.6	161°	TDZE	N/A
Chan 113		Apt Elev	30

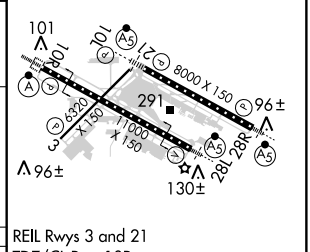
VOR-A
PORTLAND INTL (PDX)

MISSED APPROACH: Climbing left turn to 4000 via BTG R-160 to BTG VORTAC.

ATIS	PORTLAND APP CON ★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

CATEGORY	A	B	C	D
CIRCLING	880-1 850 (900-1)	880-1¼ 850 (900-1¼)	880-2½ 850 (900-2½)	1020-3 990 (1000-3)
DME MINIMA				
CIRCLING	740-1 710 (800-1)		740-2 710 (800-2)	1020-3 990 (1000-3)

FAF to MAP 9.1 NM

Knots	60	90	120	150	180
Min:Sec	9:06	6:04	4:33	3:38	3:02

NW-1, 03 JUN 2010 to 01 JUL 2010

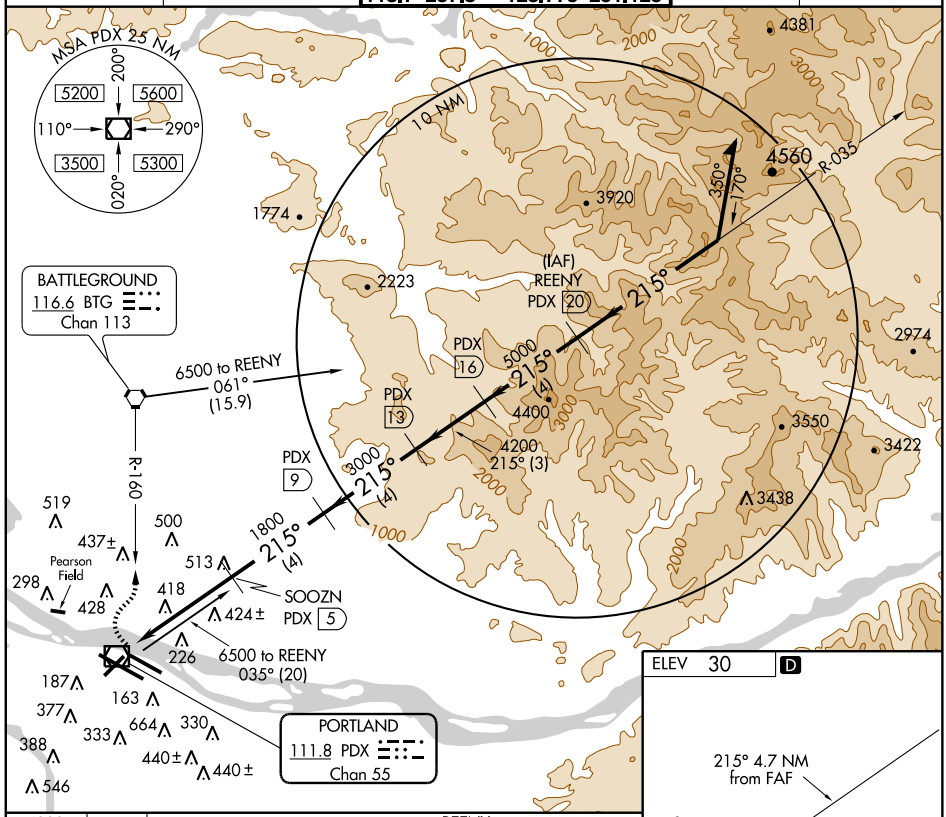
VOR/DME PDX 111.8 Chan 55	APP CRS 215°	Rwy ldg 6320 TDZE 27 Apt Elev 30

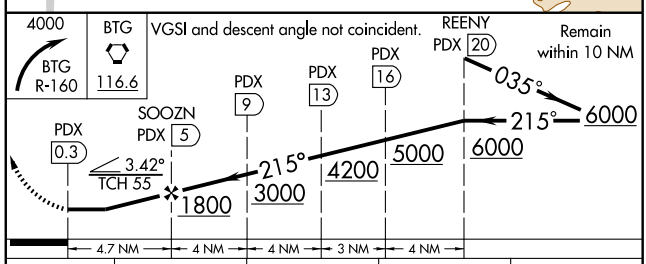
VOR/DME RWY 21
PORTLAND INTL (PDX)

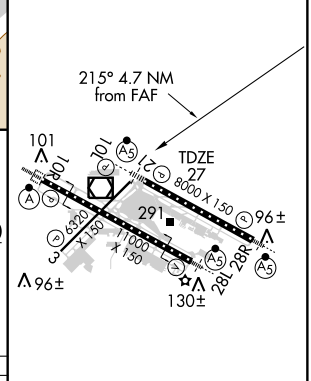
Visibility reduction by helicopters NA.

MISSED APPROACH: Climbing right turn to 4000 via BTG R-160 to BTG VORTAC.

ATIS	PORTLAND APP CON ★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1







CATEGORY	A	B	C	D
S-21	720-1 693 (700-1)		720-2 693 (700-2)	720-2¼ 693 (700-2¼)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)

REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

NW-1, 03 JUN 2010 to 01 JUL 2010

VOR/DME PDX	APP CRS	Rwy ldg	8000
111.8	272°	TDZE	26
Chan 55		Apt Elev	30

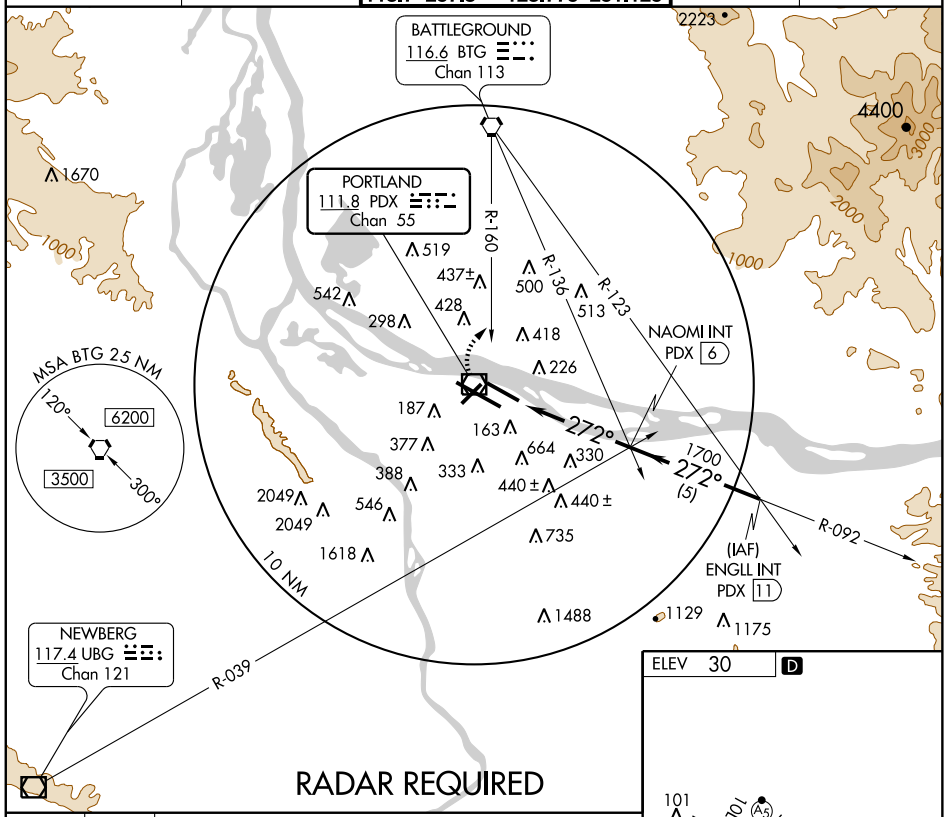
VOR RWY 28R
PORTLAND INTL (PDX)

Inoperative table applies only to Cat. C and D.

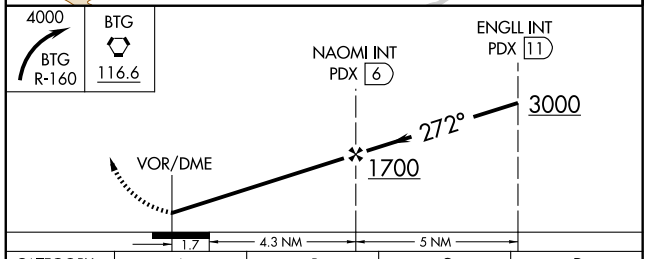
MALSR

MISSED APPROACH: Climbing right turn to 4000 via BTG R-160 to BTG VORTAC.

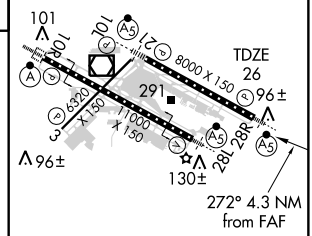
ATIS	PORTLAND APP CON ★	PORTLAND TOWER Rwy 10L-28R	PORTLAND TOWER Rwys 3-21, 10R-28L	GND CON	CLNC DEL
128.35 269.9	124.35 299.2	118.7 257.8	123.775 251.125	121.9 348.6	120.125 318.1



RADAR REQUIRED



ELEV 30 D



CATEGORY	A	B	C	D
S-28R	600/50 574 (600-1)			600/60 574 (600-1¼)
CIRCLING	720-1 690 (700-1)	740-1 710 (800-1)	740-2 710 (800-2)	1020-3 990 (1000-3)

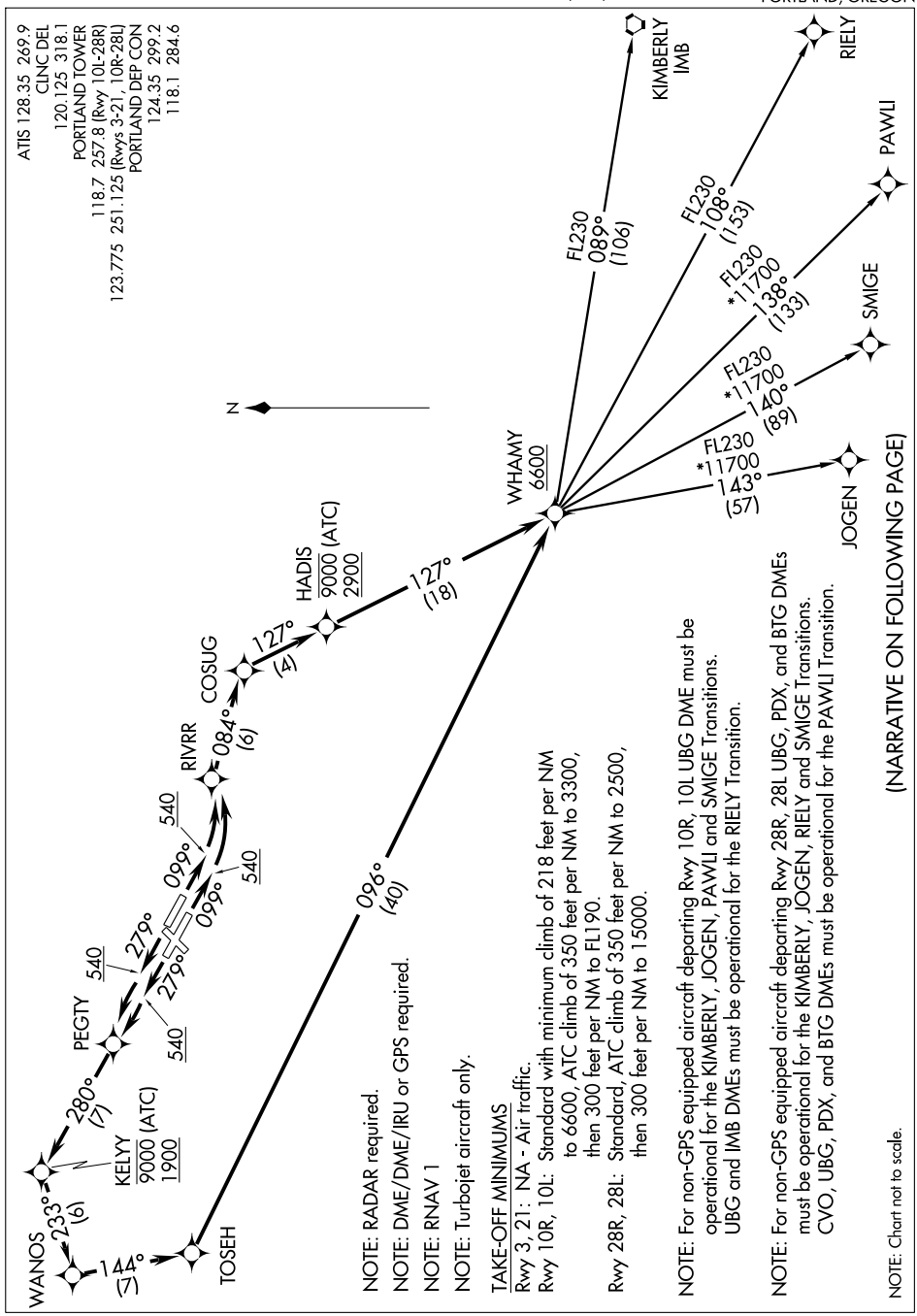
REIL Rwys 3 and 21
TDZ/CL Rwy 10R
MIRL Rwy 3-21
HIRL Rwys 10L-28R and 10R-28L

NW-1, 03 JUN 2010 to 01 JUL 2010

WHAMY ONE DEPARTURE (RNAV)

SL-330 (FAA)

PORTLAND INTL (PDX)
PORTLAND, OREGON



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 10R: Climb heading 099° to 540 feet, then left turn direct RIVRR, and via 084° track to COSUG, and via 127° track to cross HADIS at or below 9000 (ATC)/2900, then via 127° track to WHAMY, cross WHAMY at or above 6600, thence....

TAKE-OFF RUNWAY 10L: Climb heading 099° to 540 feet, then left turn direct RIVRR, and via 084° track to COSUG, and via 127° track to cross HADIS at or below 9000 (ATC)/2900, then via 127° track to WHAMY, cross WHAMY at or above 6600, thence....

TAKE-OFF RUNWAY 28R: Climb heading 279° to 540 feet, then left turn direct PEGTY, and via 280° track to cross KELYY at or below 9000 (ATC)/1900, then via track 233° to WANOS, and via 144° track to TOSEH, and via 096° track to WHAMY, cross WHAMY at or above 6600, thence....

TAKE-OFF RUNWAY 28L: Climb heading 279° to 540 feet, then right turn direct PEGTY, and via 280° track to cross KELYY at or below 9000 (ATC)/1900, then via track 233° to WANOS, and via 144° track to TOSEH, and via 096° track to WHAMY, cross WHAMY at or above 6600, thence....

....via (Transition), maintain assigned altitude, expect filed altitude 10 minutes after departure.

JOGEN TRANSITION (WHAMY1.JOGEN)

KIMBERLY TRANSITION (WHAMY1.IMB)

PAWLI TRANSITION (WHAMY1.PAWLI)

RIELY TRANSITION (WHAMY1.RIELY)

SMIGE TRANSITION (WHAMY1.SMIGE)

TAKE-OFF OBSTACLE NOTES

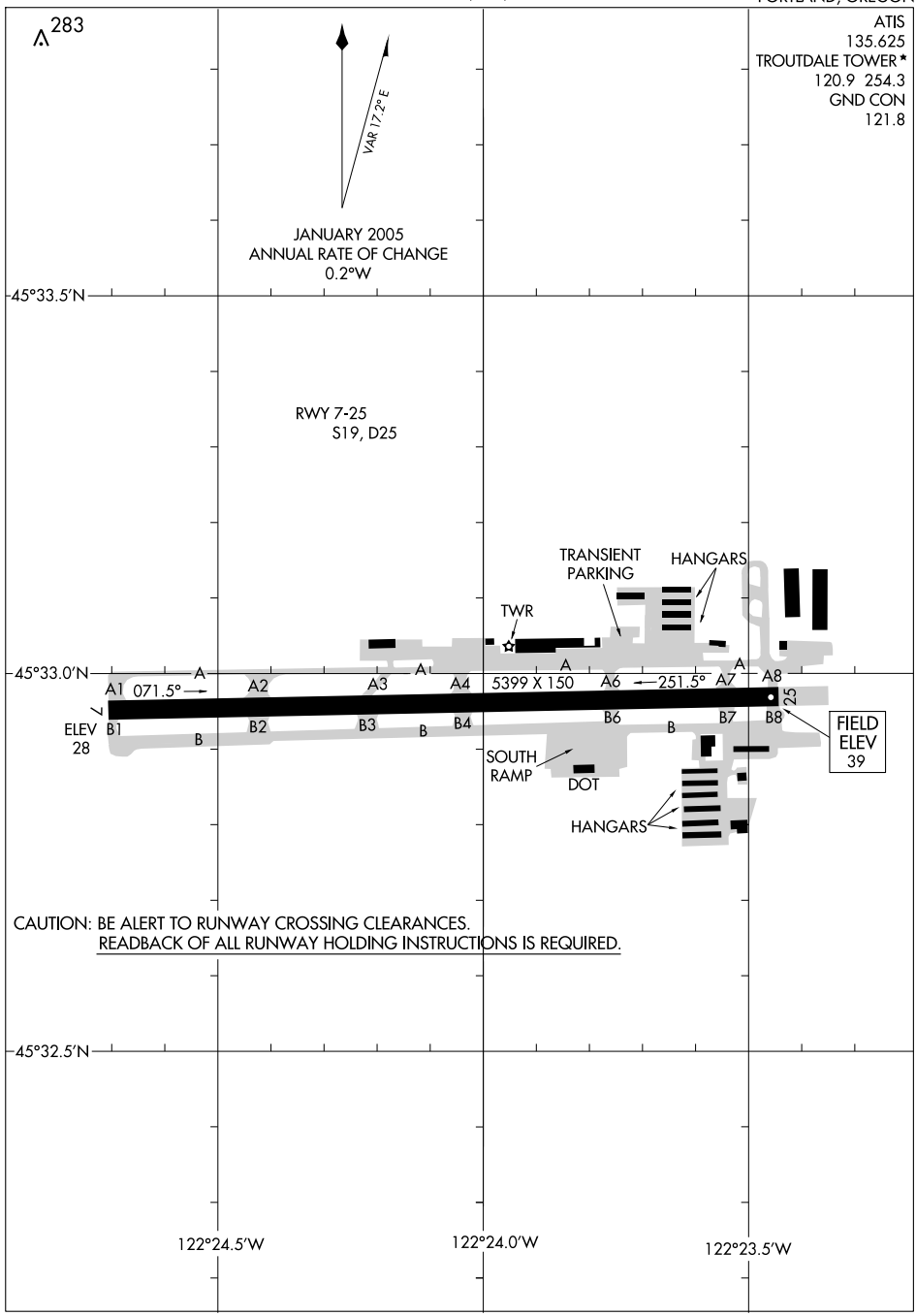
Rwy 10L: Rising terrain and vehicle on road beginning 7′ from DER, 376′ left of centerline, up to 17′ AGL/60′ MSL.
Rwy 10R: Pole 1996′ from DER, 758′ right of centerline, 54′ AGL/74′ MSL
Rwy 28L: Trees 1873′ from DER, 836′ left of centerline, 50′ AGL/88′ MSL.
Rwy 28R: Multiple signs, poles, and vehicle on road beginning 876′ from DER, 654′ right of centerline, up to 27′ AGL/69′ MSL.

NW-1. 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-649 (FAA)

PORTLAND-TROUTDALE (TTD)
PORTLAND, OREGON



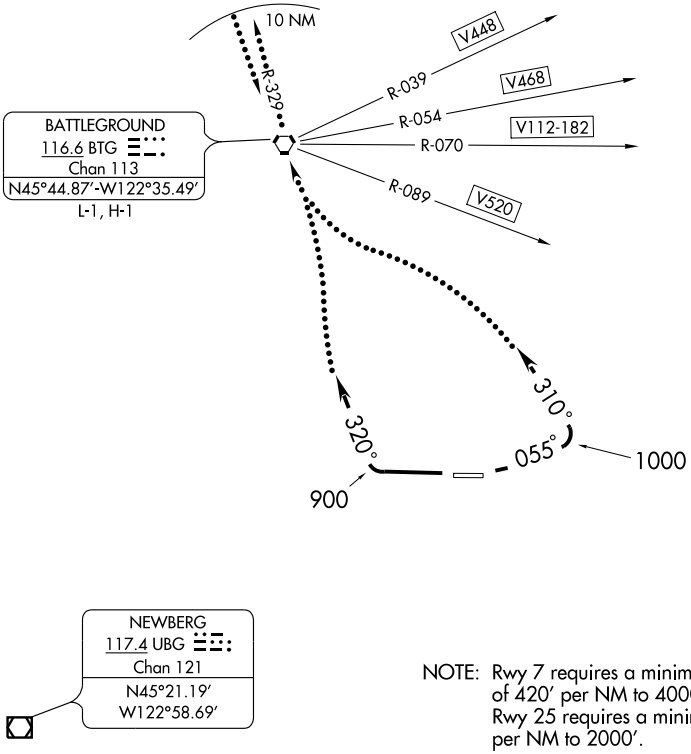
NW-1. 03 JUN 2010 to 01 JUL 2010

BLUE LAKE THREE DEPARTURE

SL-649 (FAA)

PORTLAND-TROUTDALE (TTD)
PORTLAND, OREGON

CTAF 120.9



NOTE: Rwy 7 requires a minimum climb gradient of 420′ per NM to 4000′.
Rwy 25 requires a minimum climb of 310′ per NM to 2000′.

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 7: Climb via heading 055° to 1000′, then turn left to 310° or as assigned.

TAKE-OFF RUNWAY 25: Climb runway heading to 900′, then turn right to 320° or as assigned.

LOST COMMUNICATIONS: Proceed direct to BTG VORTAC. Continue climb on the BTG R-329 within 10 NM to cross BTG VORTAC at or above: NE-bound V448, 9400′; NE-bound V468, 4500′; E-bound V112, V182, V520, 4700′; for non airways BTG R-355 CW BTG R-120, 8800′; all others, 2500′.

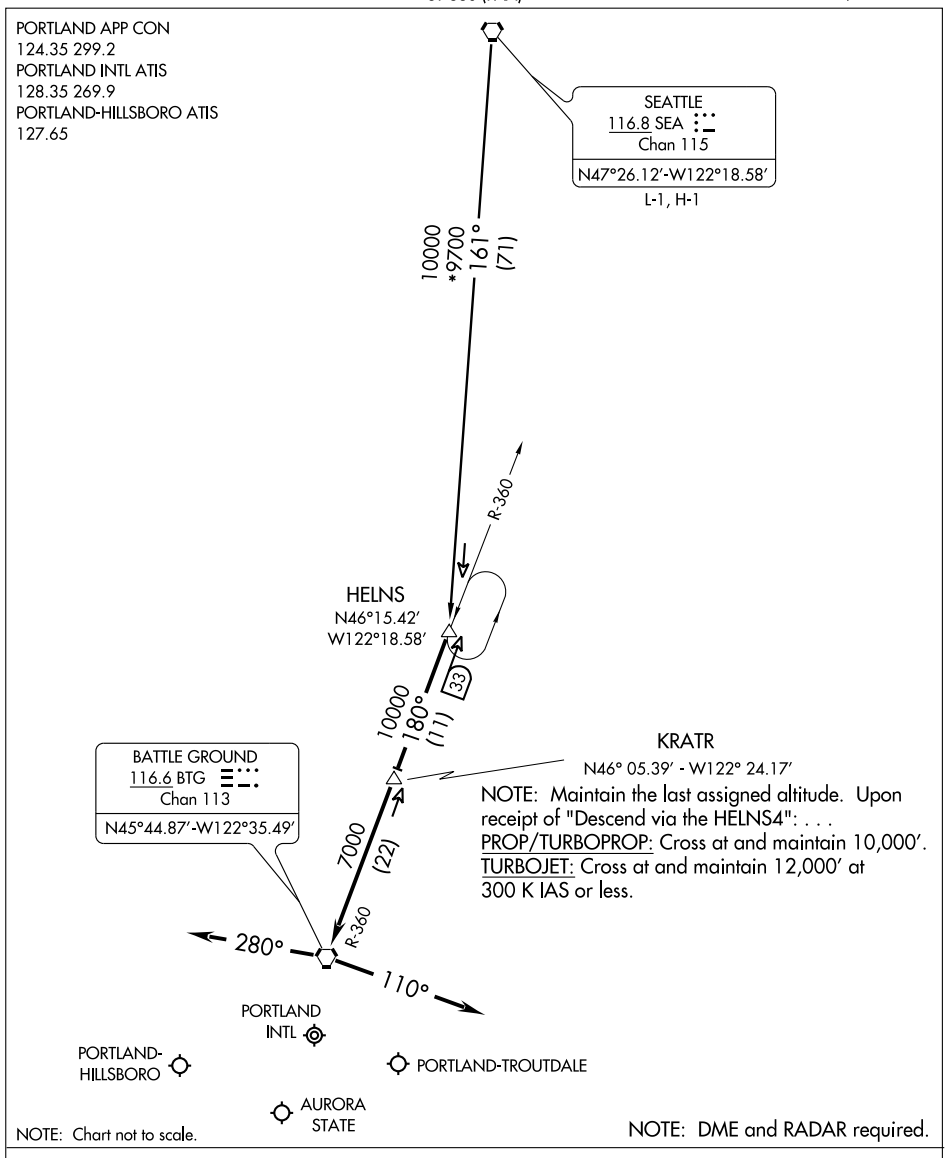
ALTERNATE LOST COMMUNICATIONS PROCEDURE: When BTG VORTAC is out of service: if no contact with ATC leaving 3000′, continue climb to assigned altitude and proceed direct to UBG VOR/DME, thence via assigned route.

(HELNS.HELNS4) 03135

HELNS FOUR ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



SEATTLE TRANSITION (SEA.HELNS4): From over SEA VORTAC via SEA R-161 to HELNS DME FIX. Thence....

.... From over HELNS DME FIX via BTG R-360 to BTG VORTAC. Thence....

LANDING EAST: Depart BTG VORTAC heading 280° for vectors to final approach course.

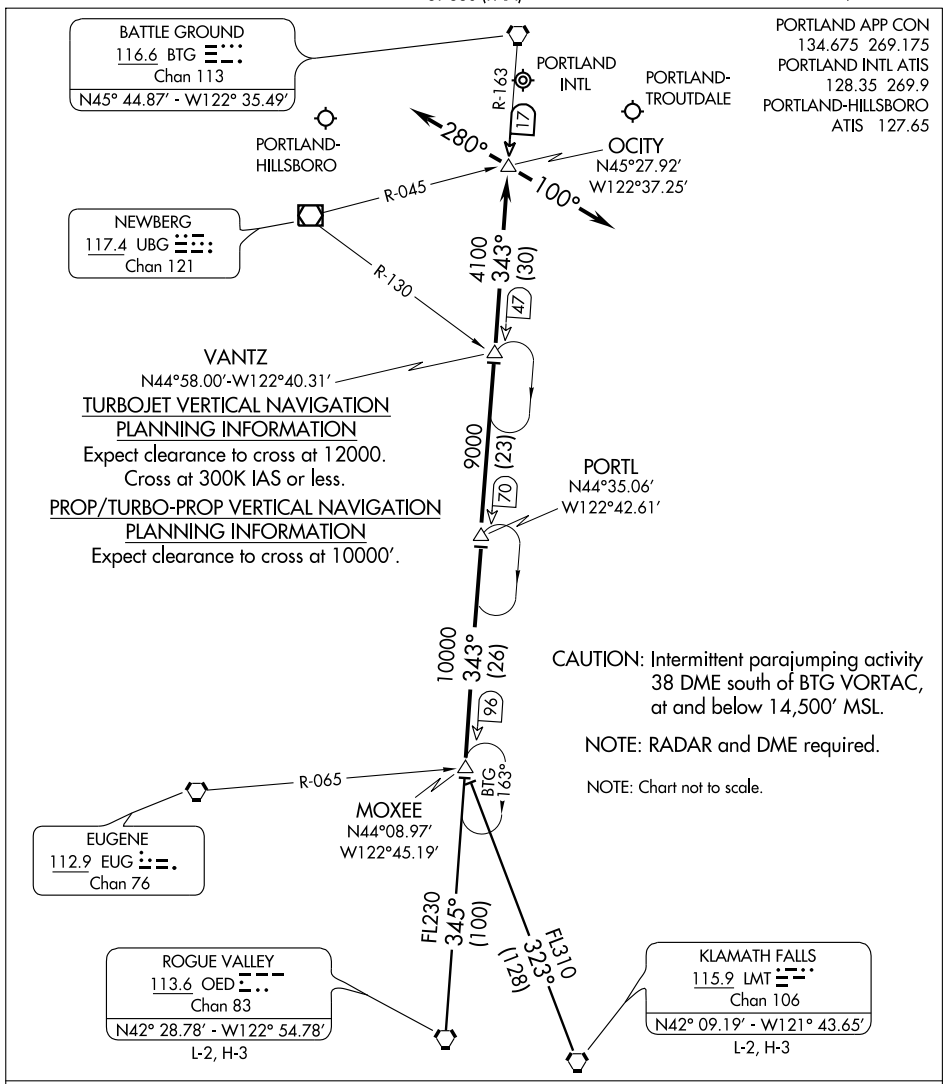
LANDING WEST: Depart BTG VORTAC heading 110° for vectors to final approach course.

NW-1, 03 JUN 2010 to 01 JUL 2010

MOXEE SIX ARRIVAL

ST-330 (FAA)

PORTLAND, OREGON



KLAMATH FALLS TRANSITION (LMT.MOXEE6): From over LMT VORTAC via LMT R-323 to MOXEE INT. Thence . . . .

ROGUE VALLEY TRANSITION (OED.MOXEE6): From over OED VORTAC via OED R-345 to MOXEE INT. Thence . . . .

. . . . From over MOXEE INT via BTG R-163 to OCITY INT. Thence via:

Landing East - Depart OCITY INT heading 280° for vectors to final approach course.

Landing West - Depart OCITY INT heading 100° for vectors to final approach course.

LOST COMMUNICATIONS: After OCITY INT, proceed direct BTG VORTAC.

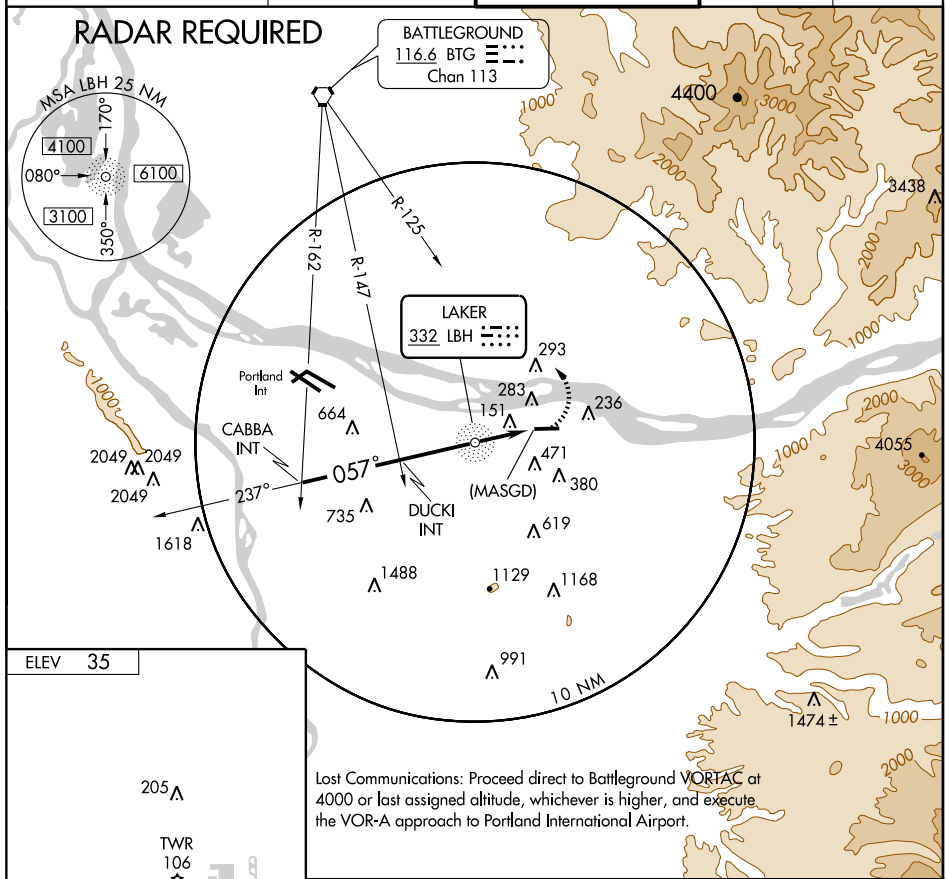
NDB LBH 332	APP CRS 057°	Rwy ldg N/A TDZE N/A Apt Elev 35

NDB or GPS-A
PORTLAND-TROUTDALE (TTD)

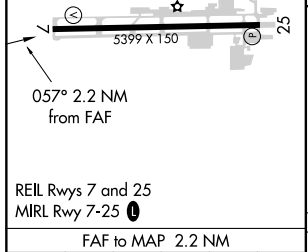
If local altimeter setting not received procedure not authorized.

MISSED APPROACH: Climbing left turn to 4000 via BTG R-125 to BTG VORTAC.

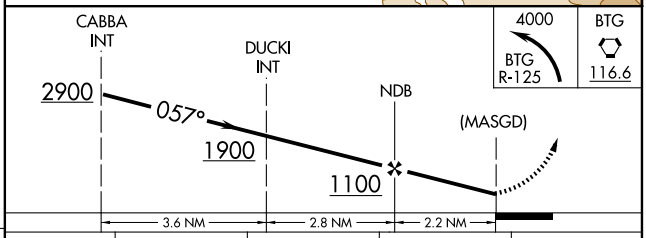
ATIS	PORTLAND APP CON	TROUTDALE TOWER ★	GND CON	UNICOM
135.625	124.35 299.2	120.9 (CTAF) L 254.3	121.8	122.95



Lost Communications: Proceed direct to Battleground VORTAC at 4000 or last assigned altitude, whichever is higher, and execute the VOR-A approach to Portland International Airport.



REIL Rwys 7 and 25
MIRL Rwy 7-25 L



FAF to MAP 2.2 NM					
Knots	60	90	120	150	180
Min:Sec	2:12	1:28	1:06	0:53	0:44

CATEGORY	A	B	C	D
CIRCLING	1040-1¼ 1005 (1100-1¼)	1060-1½ 1025 (1100-1½)	1060-3 1025 (1100-3)	1300-3 1265 (1300-3)

NW-1, 03 JUN 2010 to 01 JUL 2010

DEPARTURE ROUTE DESCRIPTION

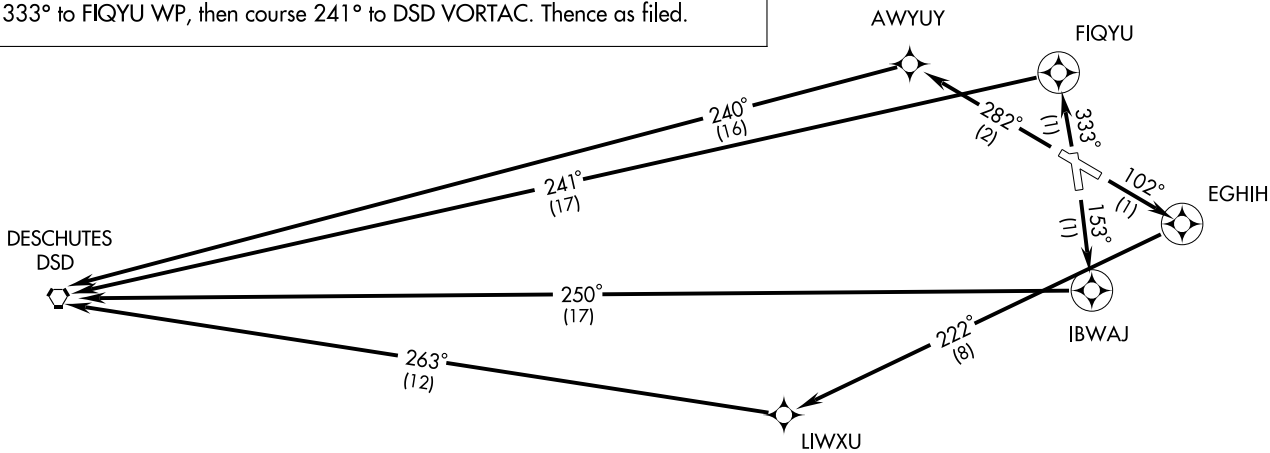
TAKE-OFF RUNWAY 10: Climb to 9000 (or ATC assigned altitude) via course 102° to EGHIH WP, then course 222° to LIWXU WP, then course 263° to DSD VORTAC. Thence as filed.

TAKE-OFF RUNWAY 15: Climb to 9000 (or ATC assigned altitude) via course 153° to IBWAJ WP, then course 250° to DSD VORTAC. Thence as filed.

TAKE-OFF RUNWAY 28: Climb to 9000 (or ATC assigned altitude) via course 282° to AWYUY WP, then course 240° to DSD VORTAC. Thence as filed.

TAKE-OFF RUNWAY 33: Climb to 9000 (or ATC assigned altitude) via course 333° to FIQYU WP, then course 241° to DSD VORTAC. Thence as filed.

SEATTLE CENTER
128.15 257.75
UNICOM 122.8 (CTAF)



NOTE: Standard with minimum climb gradient of 400′ per NM to 9000′,
except V25 North requires minimum climb gradient of 400′ per NM to 7000′.

NOTE: 1. GPS Required.
2. RNAV 1

NOTE: Chart not to scale.

(DSD1.DSD) 07074

DESCHUTES ONE DEPARTURE (RNAV)

SL-9340 (FAA)

PRINEVILLE (S39)
PRINEVILLE, OREGON

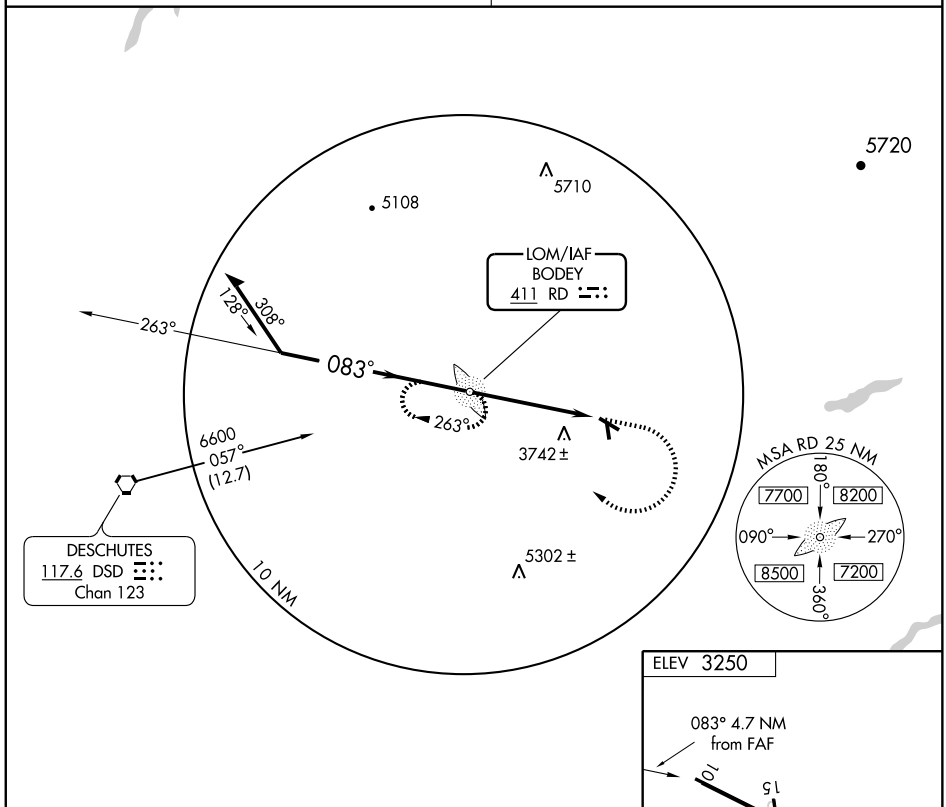
LOM RD	APP CRS	Rwy ldg	5000
411	083°	TDZE	3250
		Apt Elev	3250

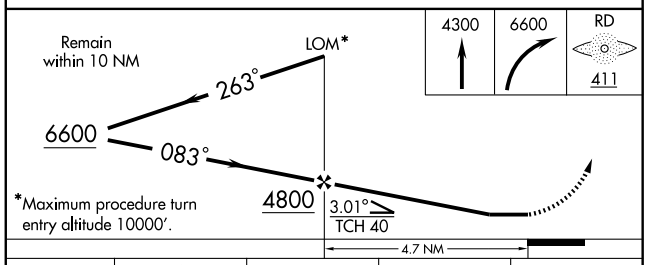
NDB RWY 10
PRINEVILLE (S39)

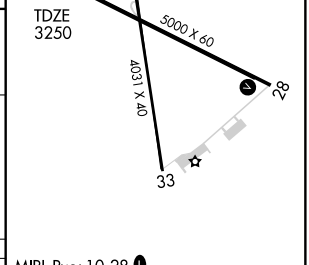
Use Roberts Field altimeter setting.
NA

MISSED APPROACH: Climb to 4300 then climbing right turn to 6600 direct RD LOM and hold.

SEATTLE CENTER	UNICOM
128.15 257.75	122.8 (CTAF) L







MIRL Rwy 10-28 L
LIRL Rwy 15-33 L

CATEGORY	A	B	C	D
S-10	4100-1 850 (900-1)	4100-1¼ 850 (900-1¼)	4100-2½ 850 (900-2½)	4100-2¾ 850 (900-2¾)
CIRCLING	4100-1 850 (900-1)	4100-1¼ 850 (900-1¼)	4100-2½ 850 (900-2½)	4100-2¾ 850 (900-2¾)

FAF to MAP 4.7 NM

Knots	60	90	120	150	180
Min:Sec	4:42	3:08	2:21	1:53	1:34

NW-1, 03 JUN 2010 to 01 JUL 2010

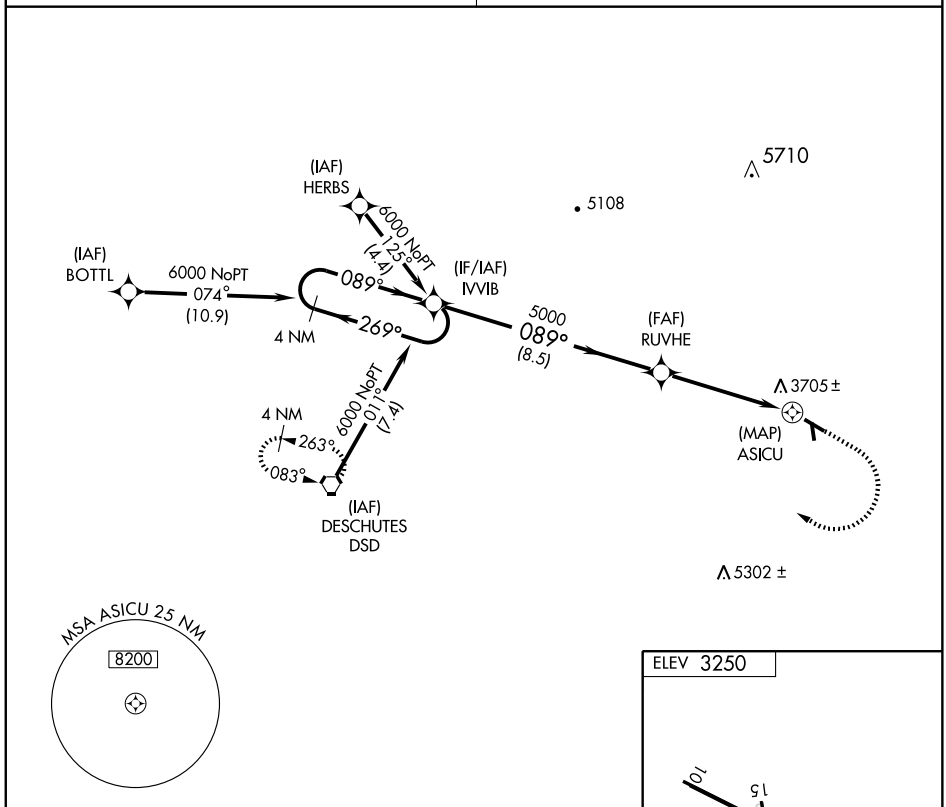
APP CRS	Rwy ldg	5000
089°	TDZE	3250
	Apt Elev	3250

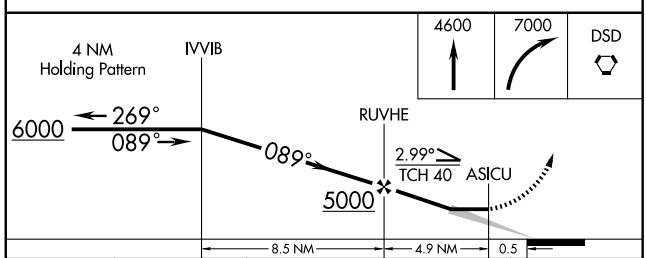
RNAV (GPS) RWY 10
PRINEVILLE (S39)

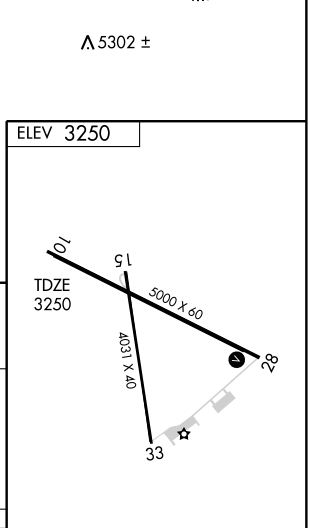
GPS or RNP-0.3 required. DME/DME RNP-0.3 NA.
NA Use Roberts Field altimeter setting.

MISSED APPROACH: Climb to 4600 then climbing right turn to 7000 direct DSD VORTAC and hold.

SEATTLE CENTER	UNICOM
128.15 257.75	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	4020-1 770 (800-1)	4020-1¼ 770 (800-1¼)	4020-2¼ 770 (800-2¼)	4020-2½ 770 (800-2½)
CIRCLING	4060-1 810 (900-1)	4100-1¼ 850 (900-1¼)	4100-2½ 850 (900-2½)	4100-2¾ 850 (900-2¾)

MIRL Rwy 10-28 L
LIRL Rwy 15-33 L

NW-1. 03 JUN 2010 to 01 JUL 2010

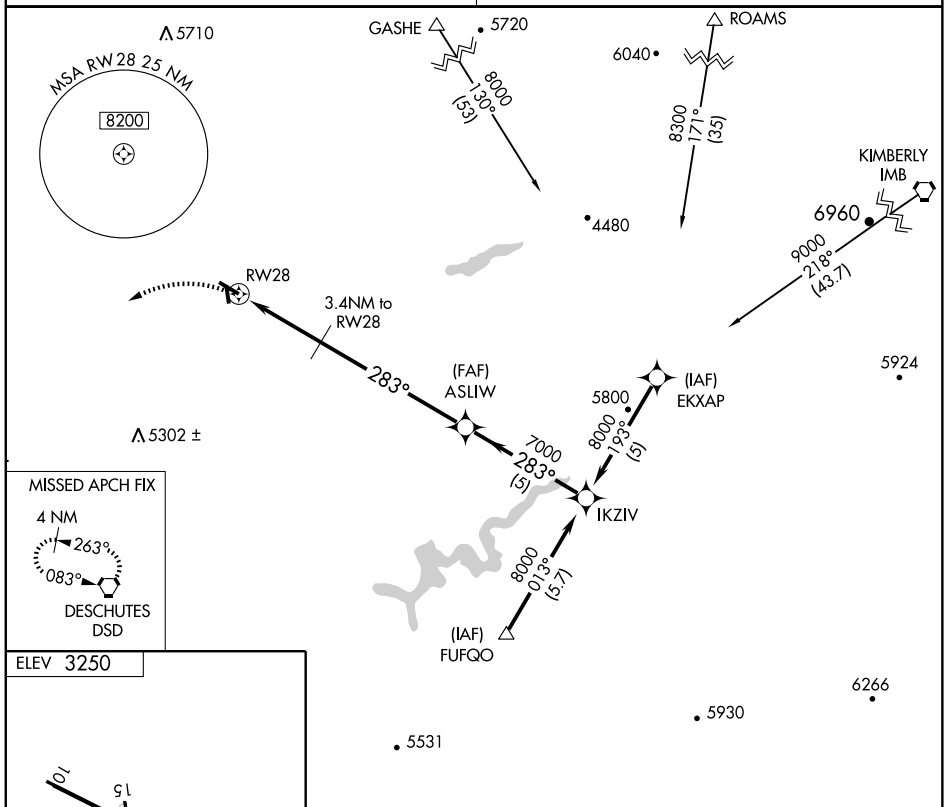
APP CRS	Rwy ldg	5000
283°	TDZE	3246
	Apt Elev	3250

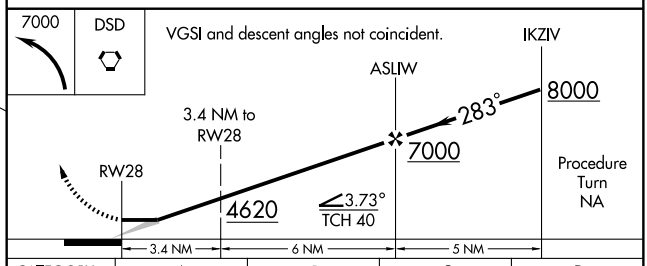
RNAV (GPS) RWY 28
PRINEVILLE (S39)

GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
Use Roberts Field altimeter setting.

MISSED APPROACH: Climbing left turn to 7000 direct DSD VORTAC and hold.

SEATTLE CENTER	UNICOM
128.15 257.75	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	3840-1 594 (600-1)		3840-1½ 594 (600-1½)	NA
CIRCLING	4060-1 810 (900-1)	4100-1¼ 850 (900-1¼)	4100-2½ 850 (900-2½)	4100-2¾ 850 (900-2¾)

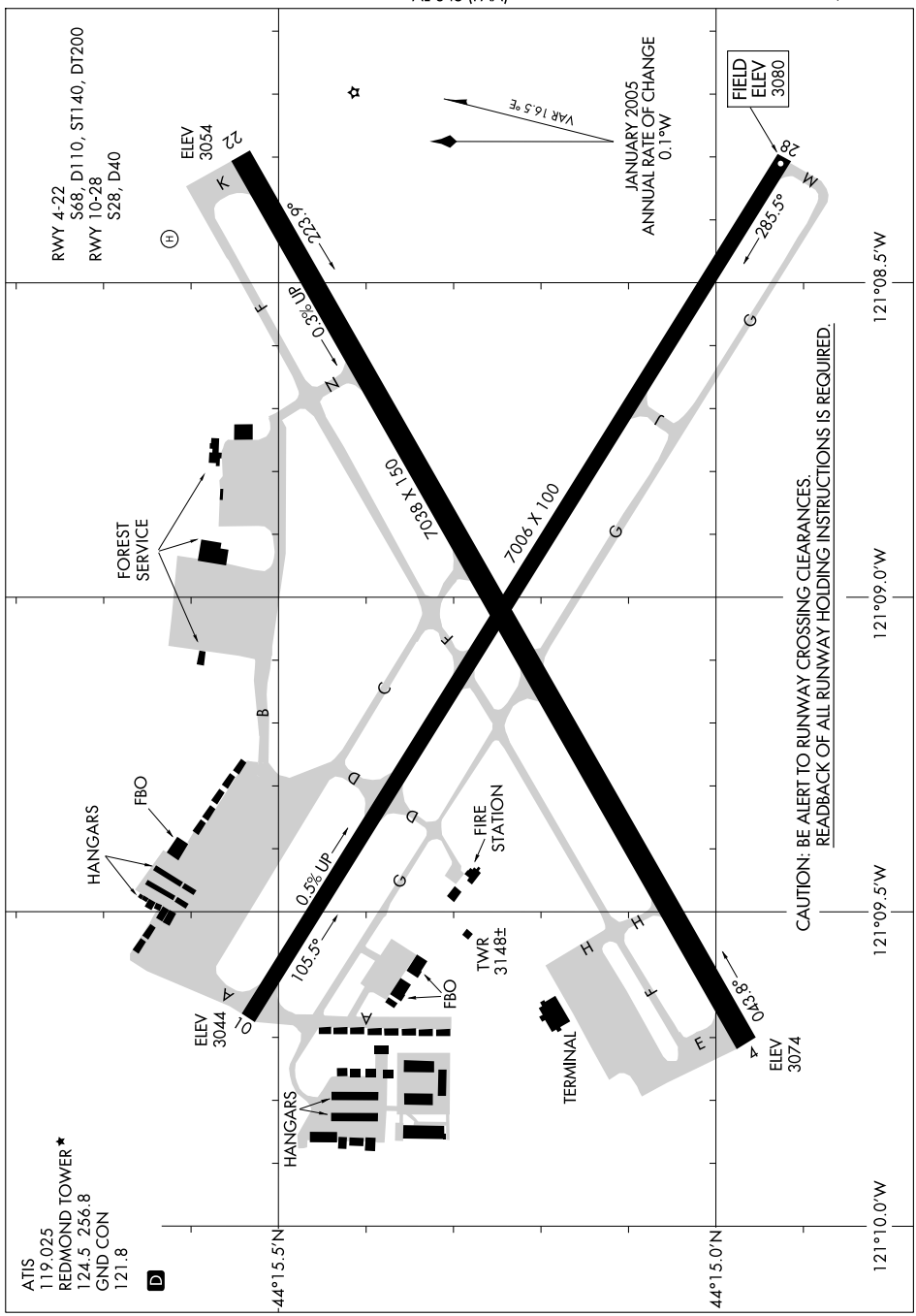
MIRL Rwy 10-28 L
LIRL Rwy 15-33 L

NW-1. 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-345 (FAA)

REDMOND/ ROBERTS FIELD (RDM)
REDMOND, OREGON



LOC I-RDM	APP CRS	Rwy ldg	7038
109.1	222°	TDZE	3065
		Apt Elev	3080

ILS or LOC RWY 22

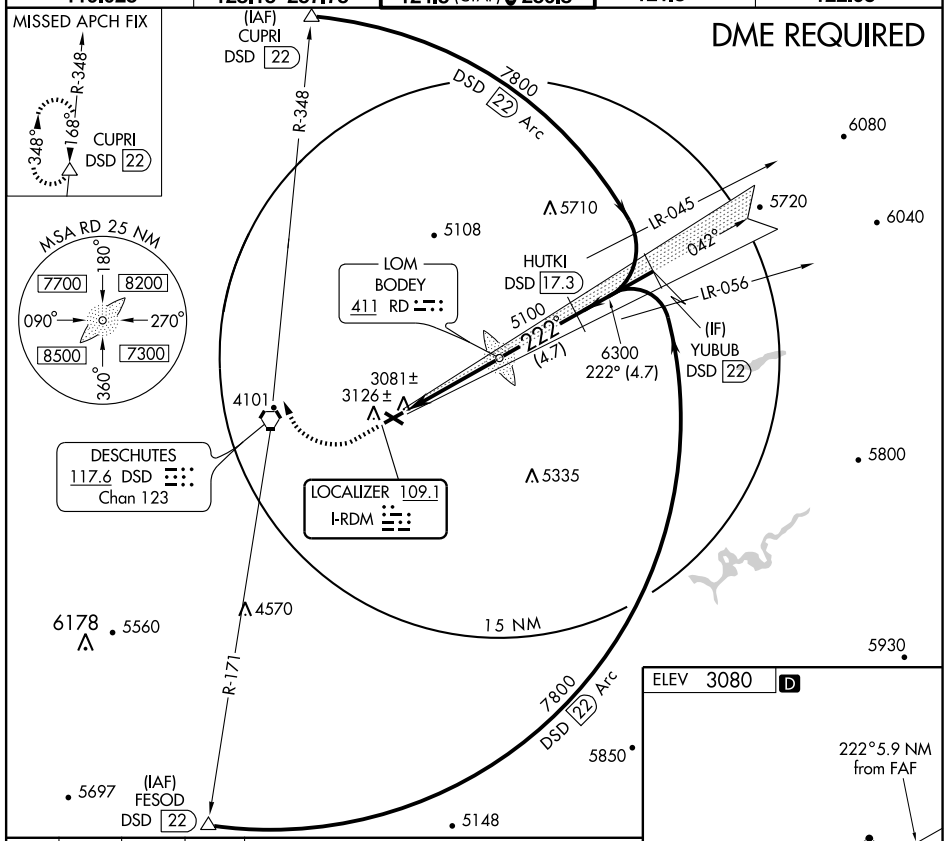
REDMOND/ROBERTS FIELD (RDM)

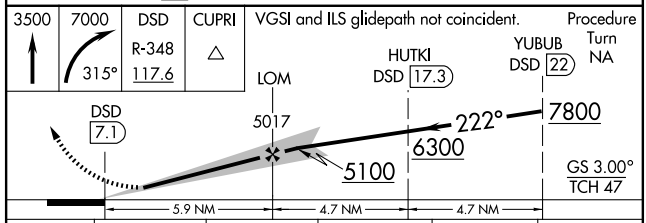
For inoperative MALSR, increase S-ILS 22 Cat. E visibility to ¾.
For inoperative MALSR, increase S-LOC 22 Cat. D and E visibility to 1. Autopilot coupled approach NA below 4370.

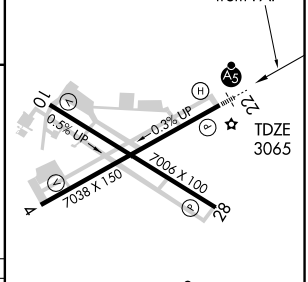
MALSR

MISSED APPROACH: Climb to 3500 then climbing right turn to 7000 via heading 315° and DSD VORTAC R-348 to CUPRI/DSD 22 DME and hold.

ATIS	SEATTLE CENTER	REDMOND TOWER★	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95







REIL Rwys 4, 10 and 28 L
HIRL Rwy 4-22 L
MIRL Rwy 10-28 L

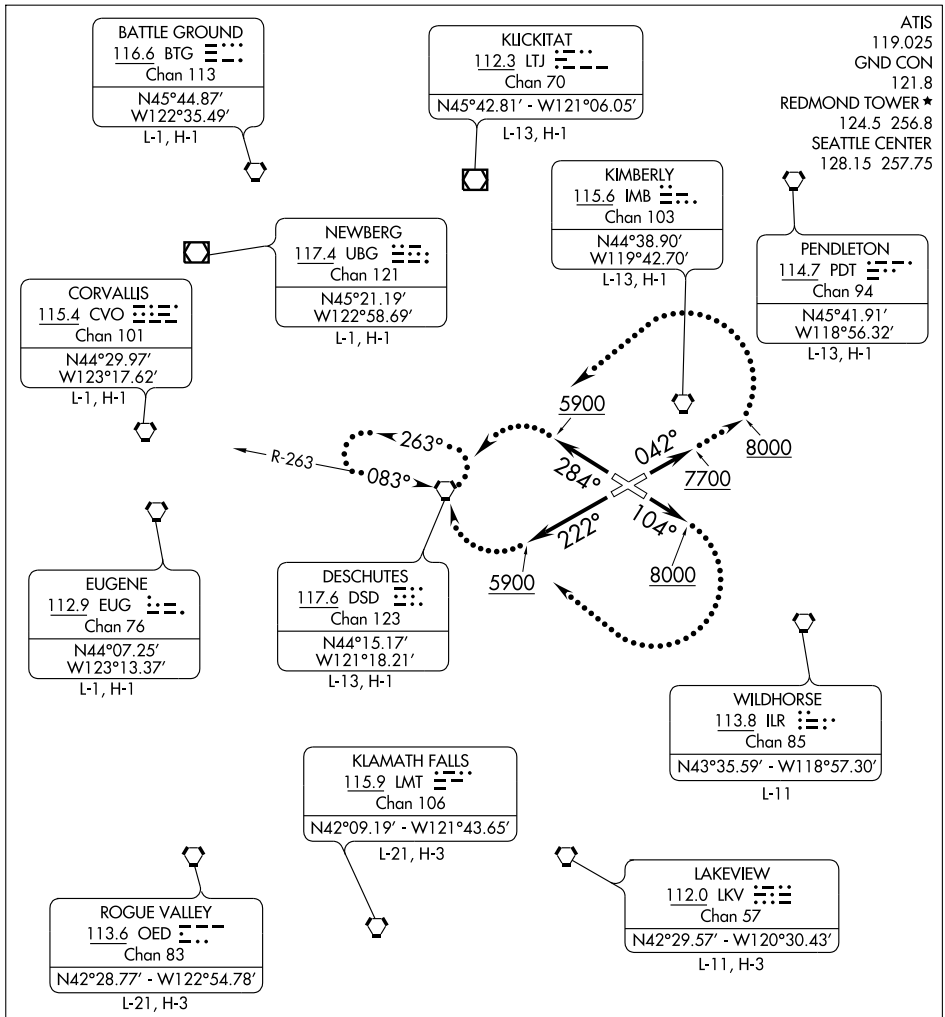
CATEGORY	A	B	C	D	E
S-ILS 22	3265-½ 200 (200-½)				
S-LOC 22	3340-½ 275 (300-½)			3340-¾ 275 (300-¾)	
CIRCLING	3520-1 440 (500-1)	3540-1 460 (500-1)	3540-1½ 460 (500-1½)	3780-2¼ 700 (700-2¼)	3780-2½ 700 (700-2½)

FAF to MAP 5.9 NM

Knots	60	90	120	150	180
Min:Sec	5:54	3:56	2:57	2:22	1:58

NW-1. 03 JUN 2010 to 01 JUL 2010

REDMOND ONE DEPARTURE



NW-1. 03 JUN 2010 to 01 JUL 2010

TAKE-OFF OBSTACLE

Rwy 28: Numerous trees beginning 1′ from DER, 356′ right of centerline, 12′ AGL/3079′ MSL. Tree 364′ from DER, 448′ left of centerline, 15′ AGL/3054′ MSL.

TAKE-OFF MINIMUMS

Rwy 4: Standard with minimum obstacle climb of 371′ per NM to 13000, ATC climb of 465′ per NM to 7700.

Rwy 10: Standard with minimum climb of 406′ per NM to 13000.

Rwy 22: Standard with minimum obstacle climb of 356′ per NM to 13000, ATC climb of 406′ per NM to 5900.

Rwy 28: Standard with minimum climb of 358′ per NM to 13000.

NOTE: RADAR required.

(NARRATIVE ON THE FOLLOWING PAGE)

NOTE: Chart not to scale.

REDMOND ONE DEPARTURE

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 4: Climb heading 042° or ATC assigned heading to 7700 for radar vectors to assigned route/fix, Thence. . . .
TAKE-OFF RUNWAY 10: Climb heading 104° or ATC assigned heading to 8000 for radar vectors to assigned route/fix, Thence. . . .
TAKE-OFF RUNWAY 22: Climb heading 222° or ATC assigned heading to 5900 for radar vectors to assigned route/fix, Thence. . . .
TAKE-OFF RUNWAY 28: Climb heading 284° or ATC assigned heading to 5900 for radar vectors to assigned route/fix, Thence. . . .

. . . . Maintain 14000 or assigned altitude, expect filed altitude/flight level five minutes after departure.

LOST COMMUNICATIONS: If no contact with Seattle Center after reaching 6000, continue climb to assigned altitude and:
TAKE-OFF RUNWAY 4: Continue climb to 8000, then climbing left turn direct DSD VORTAC. . . .
TAKE-OFF RUNWAY 10: Climbing right turn direct DSD VORTAC. . . .
TAKE-OFF RUNWAY 22: Climbing right turn direct DSD VORTAC. . . .
TAKE-OFF RUNWAY 28: Climbing left turn direct DSD VORTAC. . . .

. . . . Climb-in-hold at DSD VORTAC (hold W, LT, 083° inbound) to cross DSD VORTAC at or above the MEA before proceeding on course.

NW-1. 03 JUN 2010 to 01 JUL 2010

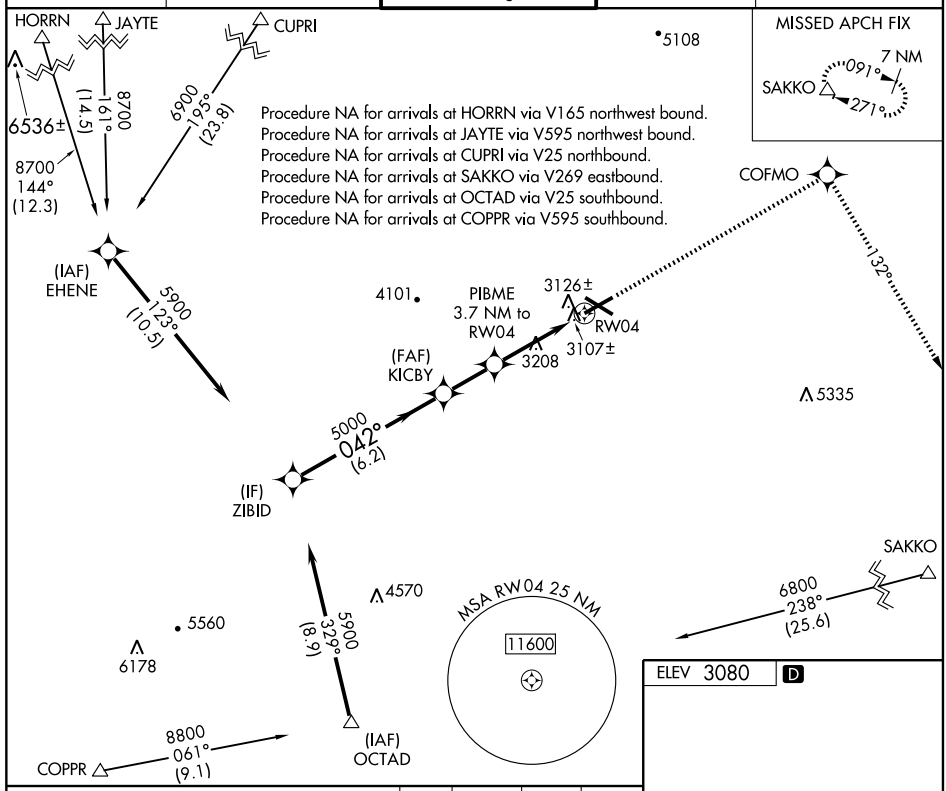
WAAS CH 70514 W04A	APP CRS 042°	Rwy ldg 7038 TDZE 3075 Apt Elev 3080

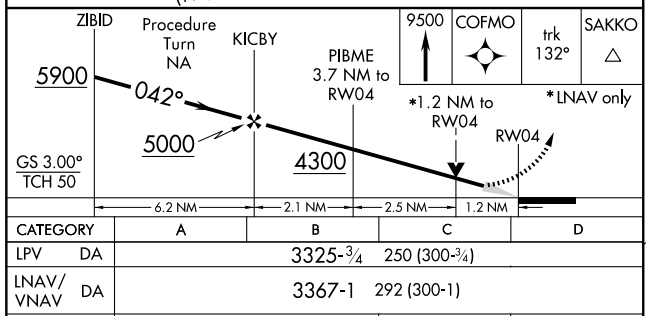
RNAV (GPS) RWY 4
REDMOND/ROBERTS FIELD (RDM)

For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C (-5°F) or above 43°C (109°F). DME/DME RNP-0.3 NA. When local altimeter setting not received procedure NA.

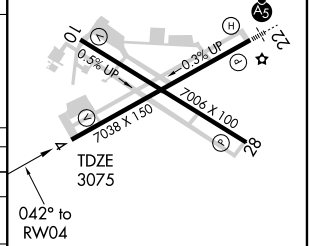
MISSED APPROACH: Climb to 9500 direct COFMO and via track 132° to SAKKO and hold, continue climb-in-hold to 9500.

ATIS	SEATTLE CENTER	REDMOND TOWER*	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95





ELEV 3080 D



CATEGORY	A	B	C	D
LPV DA	3325-¾ 250 (300-¾)			
LNAV/VNAV DA	3367-1 292 (300-1)			
LNAV MDA	3520-1 445 (500-1)		3520-1¼ 445 (500-1¼)	3520-1½ 445 (500-1½)
CIRCLING	3520-1 440 (500-1)	3540-1 460 (500-1)	3540-1½ 460 (500-1½)	3640-2 560 (600-1)

REIL Rwys 4, 10 and 28 L
HIRL Rwy 4-22 L
MIRL Rwy 10-28 L

WAAS CH 53514 W10A	APP CRS 104°	Rwy ldg 7006 TDZE 3067 Apt Elev 3080

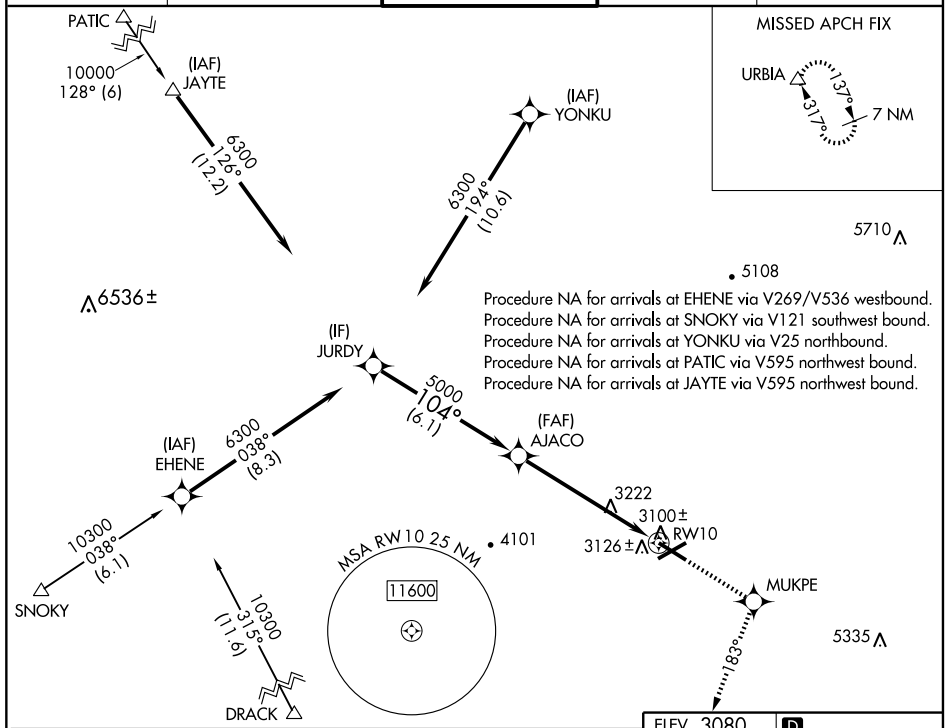
RNAV (GPS) RWY 10

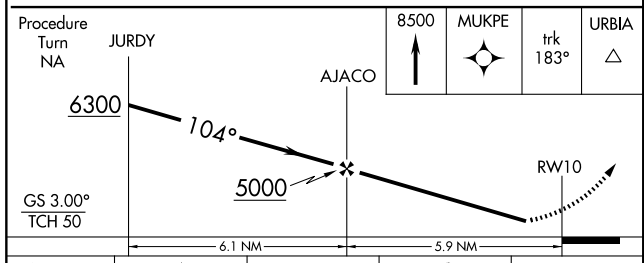
REDMOND/ROBERTS FIELD (RDM)

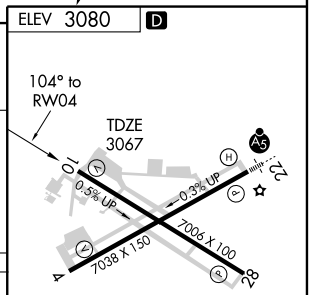
DME/DME RNP- 0.3 NA. Visibility reduction by helicopters NA. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C (-5°F) or above 43°C (109°F). When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 8500 direct MUKPE and via track 183° to URBIA and hold, continue climb-in-hold to 8500.

ATIS	SEATTLE CENTER	REDMOND TOWER ★	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95







CATEGORY	A	B	C	D
LPV DA	3317-1 250 (300-1)			
LNAV/VNAV DA	3370-1 303 (300-1)			
LNAV MDA	3480-1 413 (400-1)		3480-1¼ 413 (400-1¼)	
CIRCLING	3480-1 400 (400-1)	3540-1 460 (500-1)	3540-1½ 460 (500-1½)	3640-2 560 (600-1)

REIL Rwys 4, 10 and 28 L
HIRL Rwy 4-22 L
MIRL Rwy 10-28 L

NW-1. 03 JUN 2010 to 01 JUL 2010

WAAS CH 82514 W22A	APP CRS 222°	Rwy ldg 7038 TDZE 3065 Apt Elev 3080

RNAV (GPS) RWY 22

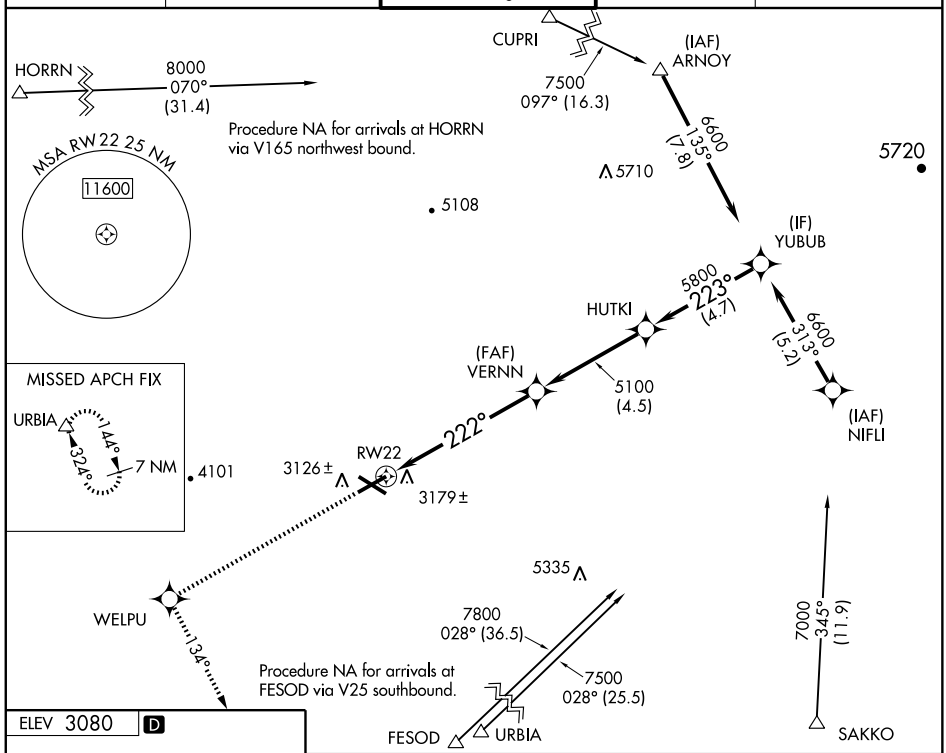
REDMOND/ ROBERTS FIELD (RDM)

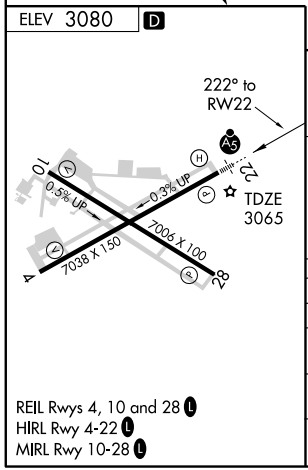
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -21°C (-5°F) or above 43°C (109°F). DME/DME RNP- 0.3 NA. When local altimeter setting not received, procedure NA. For inoperative MALSR, increase LNAV Cat D visibility to 1¼ mile.

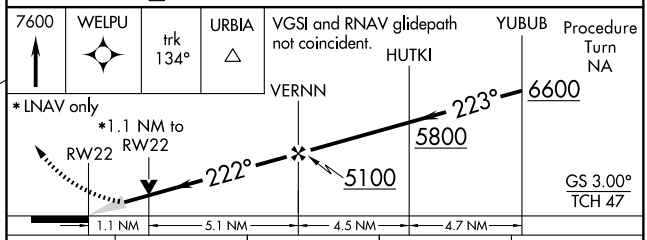
MALSR

MISSED APPROACH: Climb to 7600 direct WELPU and via track 134° to URBIA and hold, continue climb-in-hold to 7600.

ATIS	SEATTLE CENTER	REDMOND TOWER*	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95







CATEGORY	A	B	C	D
LPV DA	3265-½ 200 (200-½)			
LNAV/VNAV DA	3449-1 384 (400-1)			
LNAV MDA	3440-½ 375 (400-½)			3440-1 375 (400-1)
CIRCLING	3480-1 400 (400-1)	3540-1 460 (500-1)	3540-1½ 460 (500-1½)	3640-2 560 (600-1)

NW-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	7006
284°	TDZE	3080
	Apt Elev	3080

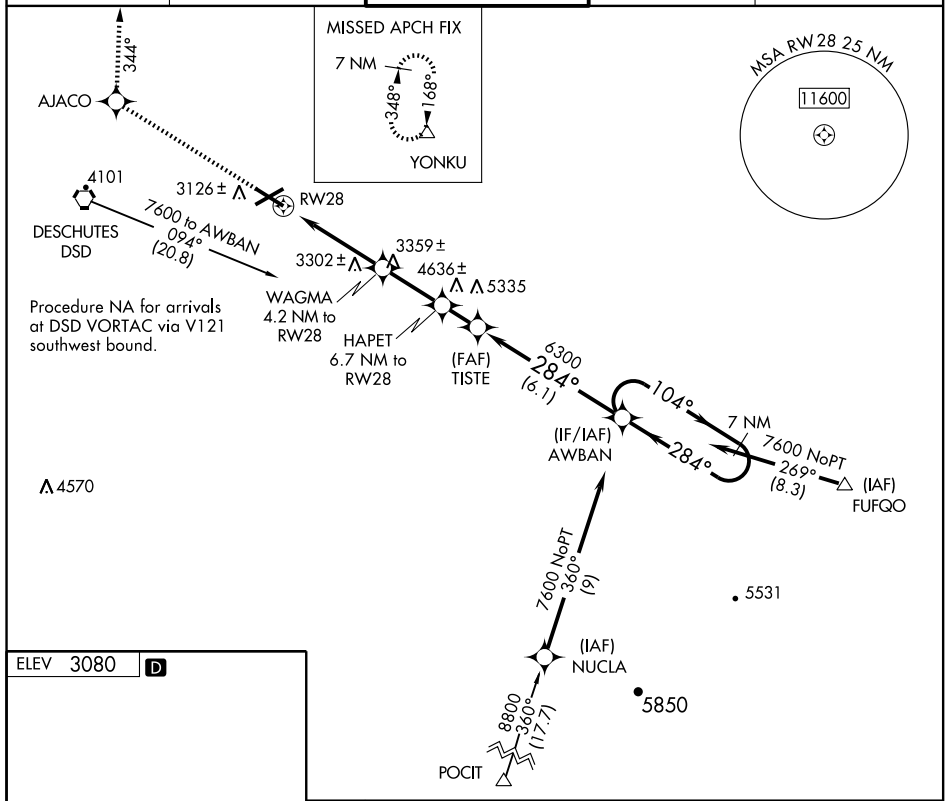
RNAV (GPS) Y RWY 28

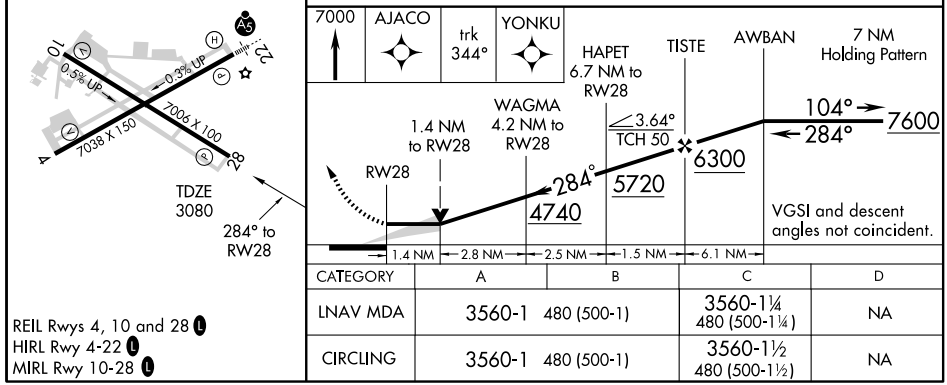
REDMOND/ ROBERTS FIELD (RDM)

DME/DME RNP -0.3 NA.
When local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 7000 direct AJACO and via track 344° to YONKU and hold, continue climb-in-hold to 7000.

ATIS	SEATTLE CENTER	REDMOND TOWER★	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95





CATEGORY	A	B	C	D
LNAV MDA	3560-1 480 (500-1)		3560-1¼ 480 (500-1¼)	NA
CIRCLING	3560-1 480 (500-1)		3560-1½ 480 (500-1½)	NA

REIL Rwys 4, 10 and 28 L
HIRL Rwy 4-22 L
MIRL Rwy 10-28 L

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 90214 W28A	APP CRS 284°	Rwy ldg 7006 TDZE 3080 Apt Elev 3080

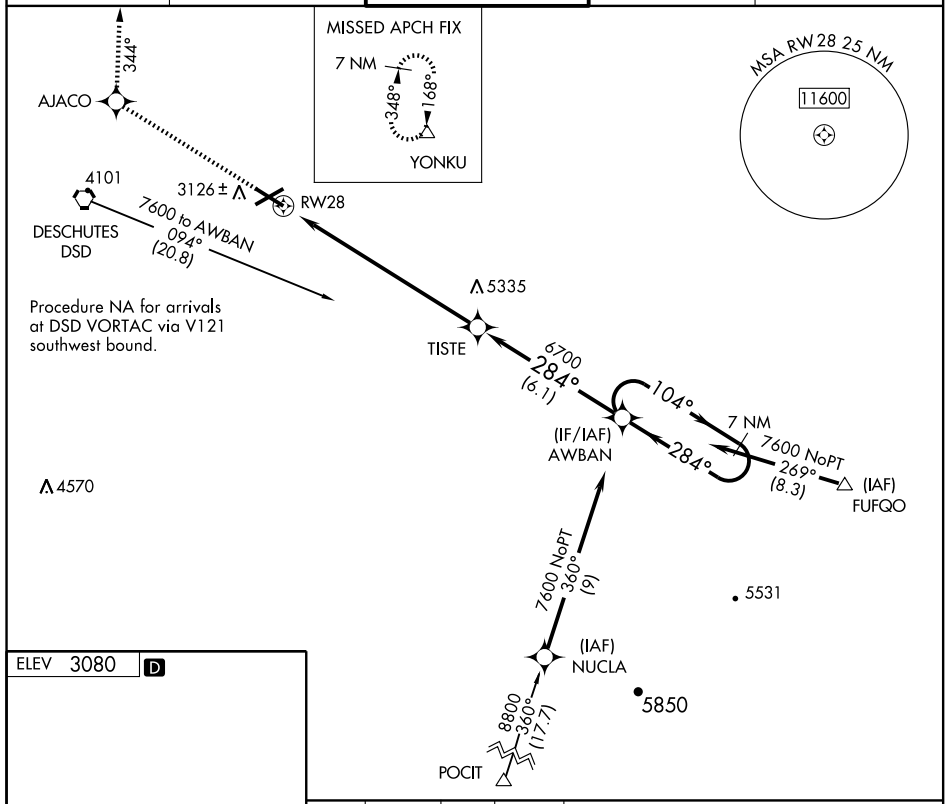
RNAV (GPS) Z RWY 28

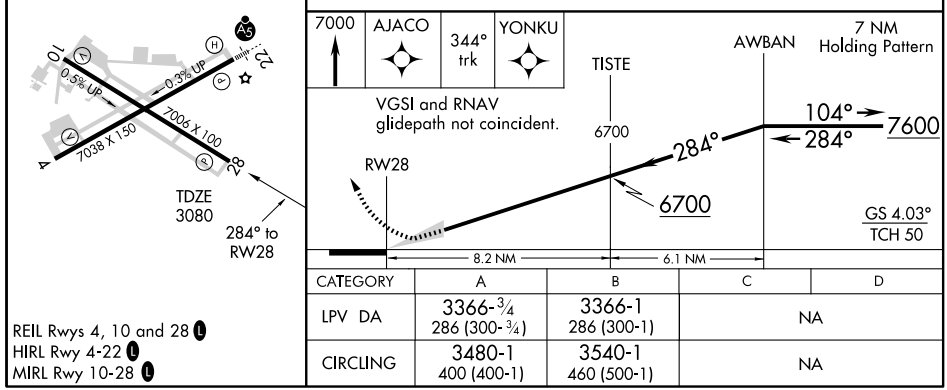
REDMOND/ROBERTS FIELD (RDM)

DME/DME RNP -0.3 NA.
When local altimeter setting not received, procedure NA.
Circling requires descent on glidepath to MDA.

MISSED APPROACH: Climb to 7000 direct AJACO and via track 344° to YONKU and hold, continue climb-in-hold to 7000.

ATIS	SEATTLE CENTER	REDMOND TOWER★	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95





CATEGORY	A	B	C	D
LPV DA	3366-¾ 286 (300-¾)	3366-1 286 (300-1)	NA	
CIRCLING	3480-1 400 (400-1)	3540-1 460 (500-1)	NA	

REIL Rwys 4, 10 and 28 L
HIRL Rwy 4-22 L
MIRL Rwy 10-28 L

NW-1, 03 JUN 2010 to 01 JUL 2010

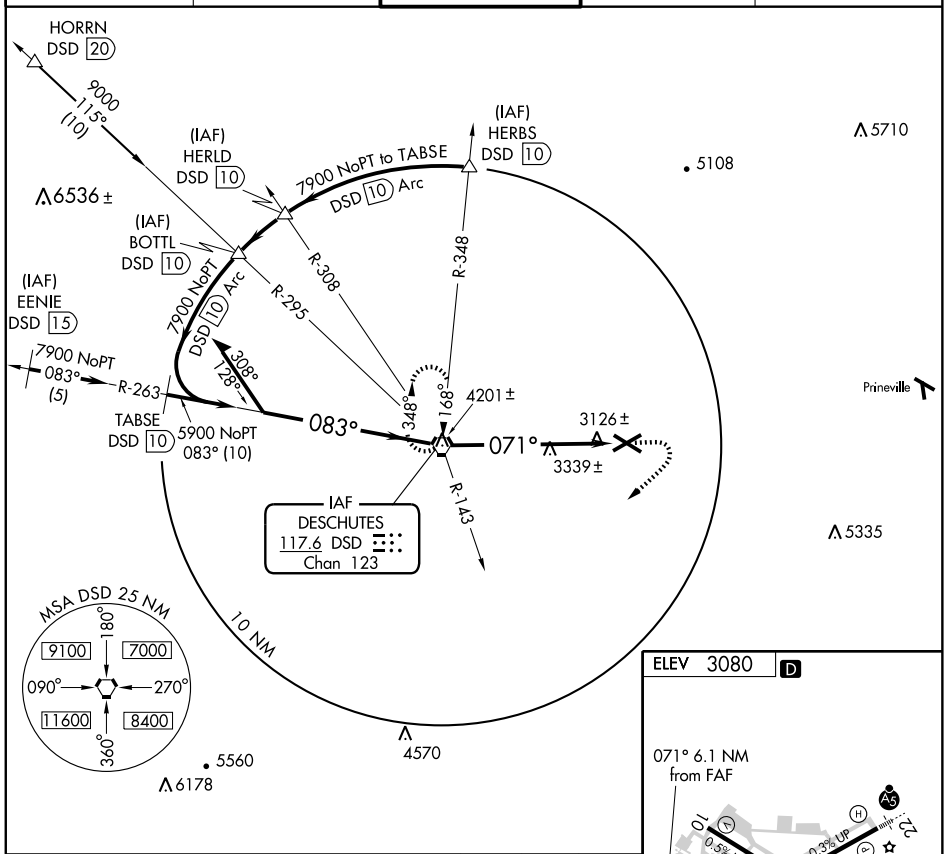
VORTAC DSD 117.6 Chan 123	APP CRS 071°	Rwy Idg N/A TDZE N/A Apt Elev 3080

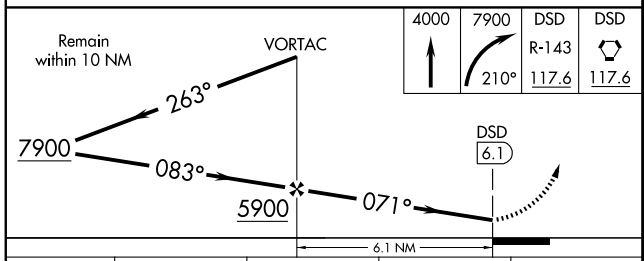
VOR-A

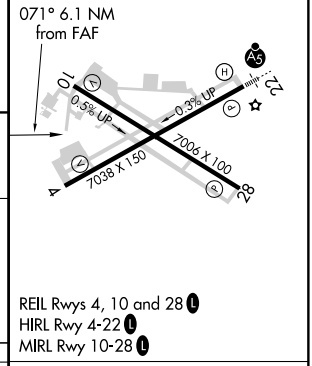
REDMOND/ ROBERTS FIELD (RDM)

MISSED APPROACH: Climb to 4000 then climbing right turn to 7900 via heading 210° and DSD R-143 to DSD VORTAC and hold.

ATIS	SEATTLE CENTER	REDMOND TOWER*	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95







CATEGORY	A	B	C	D
CIRCLING	3600-1 520 (600-1)		3600-1½ 520 (600-1½)	3640-2 560 (600-2)

FAF to MAP 6.1 NM					
Knots	60	90	120	150	180
Min:Sec	6:06	4:04	3:03	2:26	2:02

NW-1. 03 JUN 2010 to 01 JUL 2010

VORTAC DSD 117.6 Chan 123	APP CRS 249°	Rwy ldg 7038 TDZE 3065 Apt Elev 3080

VOR/DME RWY 22

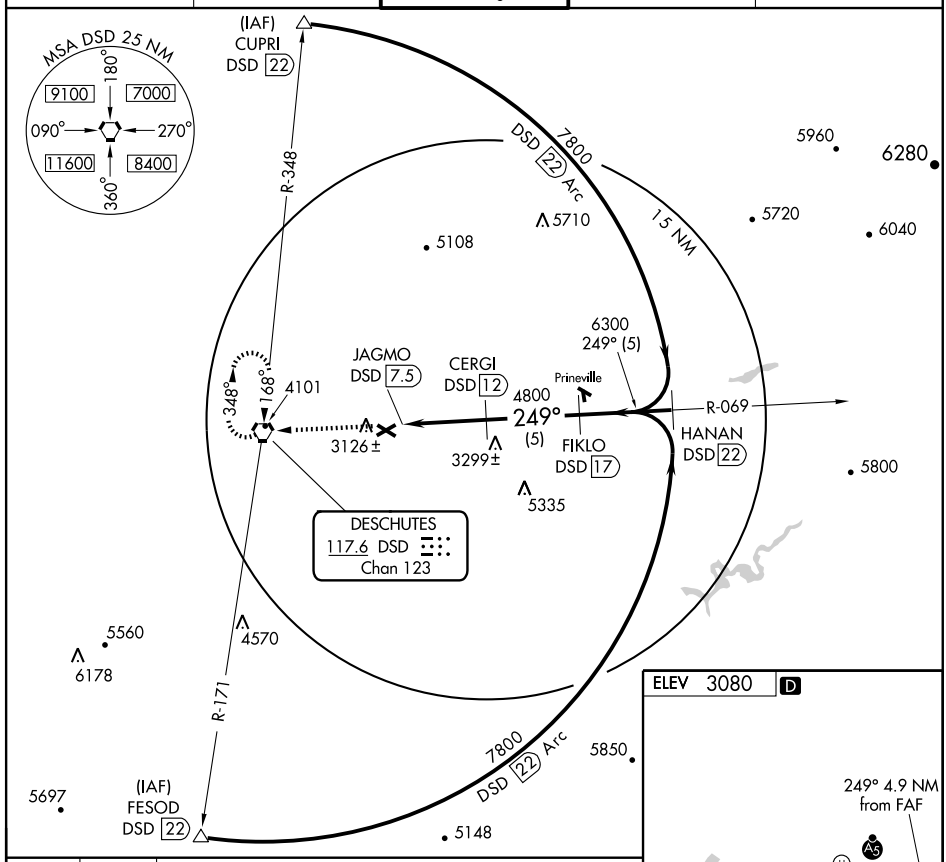
REDMOND/ROBERTS FIELD (RDM)

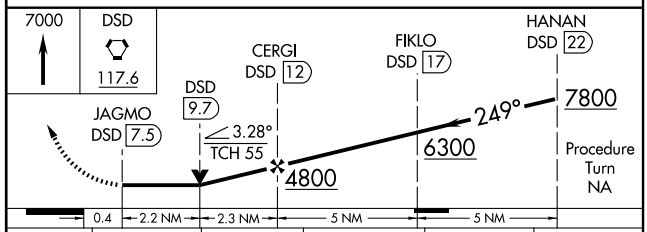
Inoperative table does not apply.

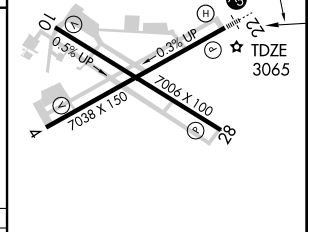
MALSR

MISSED APPROACH: Climb to 7000 direct DSD VORTAC and hold.

ATIS	SEATTLE CENTER	REDMOND TOWER★	GND CON	UNICOM
119.025	128.15 257.75	124.5 (CTAF) L 256.8	121.8	122.95







CATEGORY	A	B	C	D	E
S-22	4000-1¼ 935 (1000-1¼)		4000-2¾ 935 (1000-2¾)	4000-3 935 (1000-3)	
CIRCLING	4000-1¼ 920 (1000-1¼)		4000-2¾ 920 (1000-2¾)	4000-3 920 (1000-3)	

REIL Rwys 4, 10 and 28 L
HIRL Rwy 4-22 L
MIRL Rwy 10-28 L

NW-1. 03 JUN 2010 to 01 JUL 2010

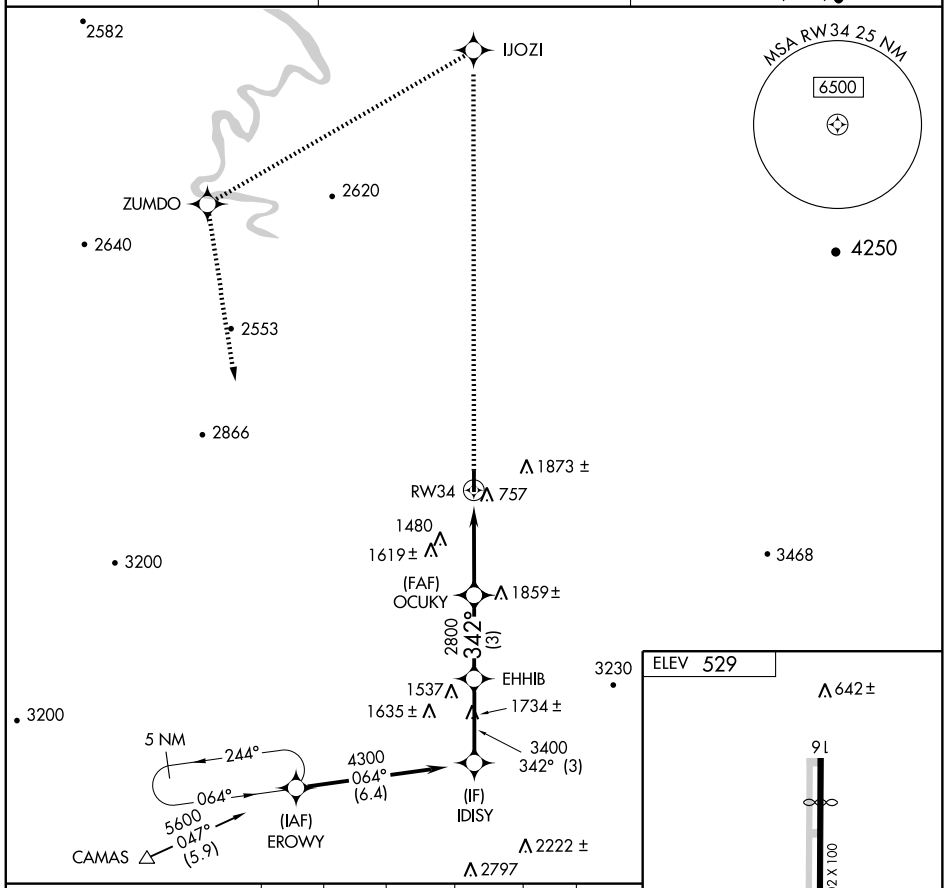
APP CRS	Rwy ldg	N/A
342°	TDZE	N/A
	Apt Elev	529

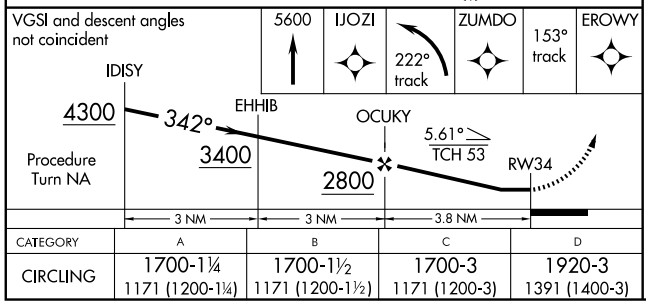
RNAV (GPS)-B
ROSEBURG RGNL (RBG)

Circling NA east of Rwy 16-34.
If local altimeter setting not received, use North Bend altimeter setting and increase all MDAs 520 feet.
DME/DME RNP -0.3 NA.

MISSED APPROACH: Climb to 5600 direct IJOZI and left turn via 222° track to ZUMDO and via 153° track to EROWY and hold.

ASOS	SEATTLE CENTER	UNICOM
135.475	121.4 239.0	122.8 (CTAF) L





CATEGORY	A	B	C	D
CIRCLING	1700-1¼ 1171 (1200-1¼)	1700-1½ 1171 (1200-1½)	1700-3 1171 (1200-3)	1920-3 1391 (1400-3)

REIL Rwys 16 and 34 L
MIRL Rwy 16-34 L

NW-1. 03 JUN 2010 to 01 JUL 2010

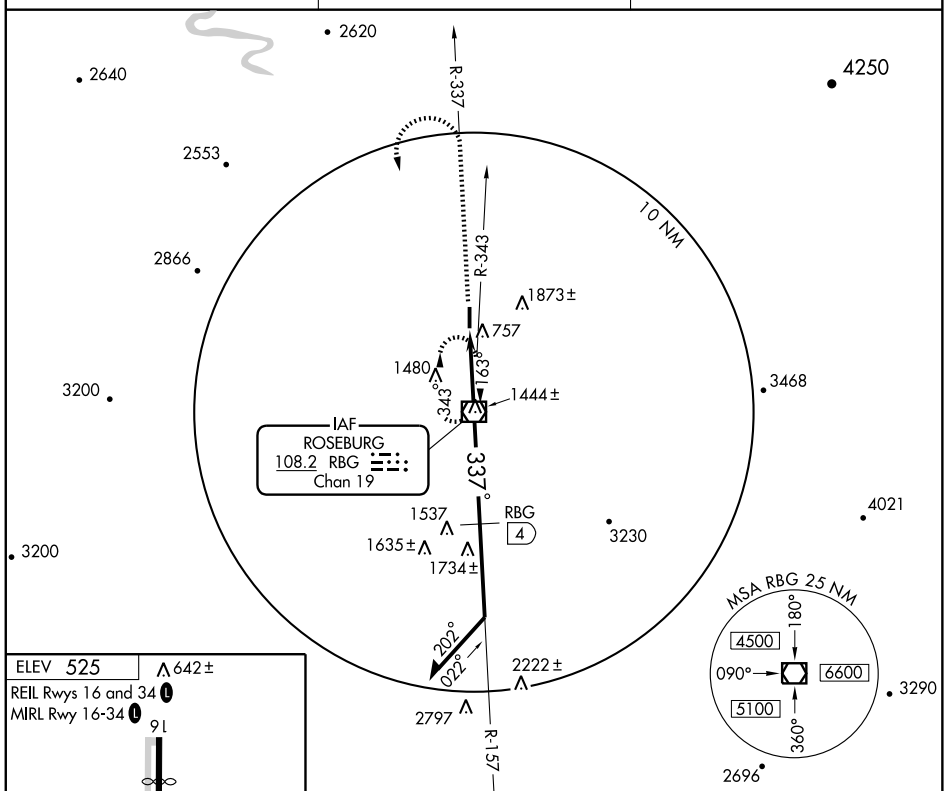
VOR/DME RBG 108.2 Chan 19	APP CRS 337°	Rwy ldg N/A TDZE N/A Apt Elev 525

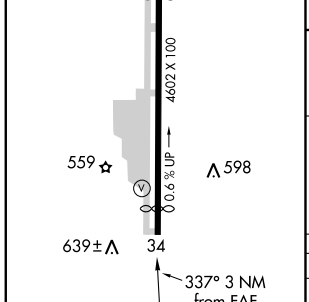
VOR-A
ROSEBURG RGNL (RBG)

NA Circling not authorized east of Rwy 16-34.

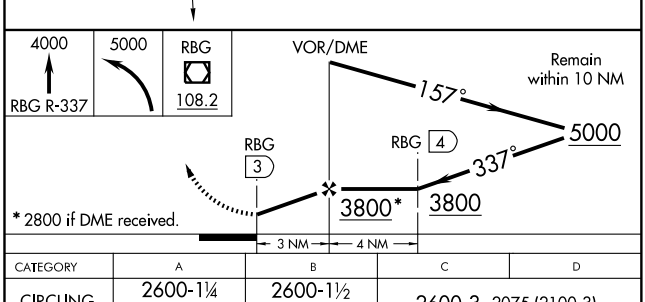
MISSED APPROACH: Climb to 4000 via RBG R-337 within 15 NM; then climbing left turn to 5000 direct RBG VOR/DME and hold.

ASOS	SEATTLE CENTER	UNICOM
135.475	121.4 239.0	122.8 (CTAF) L





FAF to MAP 3 NM					
Knots	60	90	120	150	180
Min:Sec	3:00	2:00	1:30	1:12	1:00



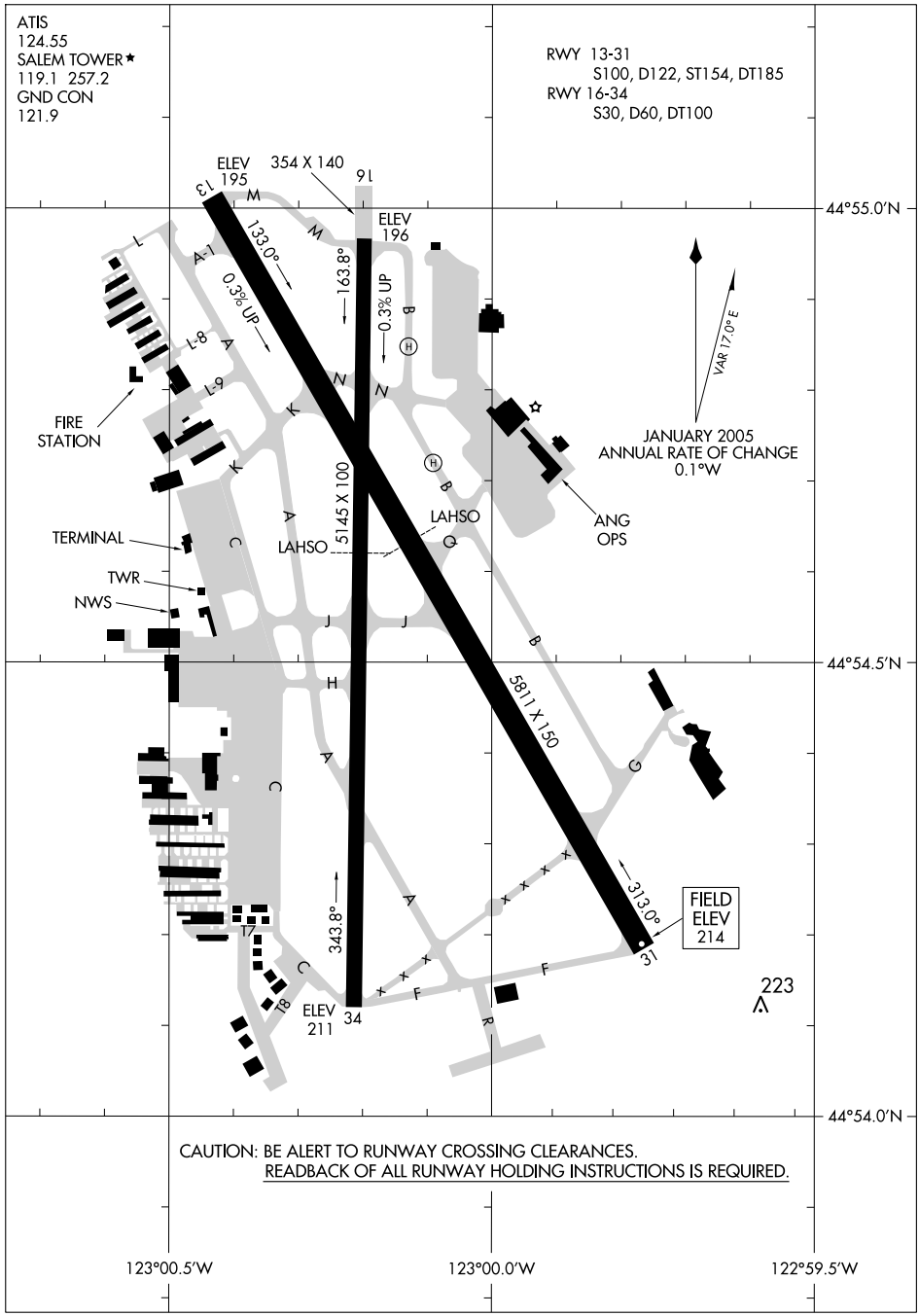
CATEGORY	A	B	C	D
CIRCLING	2600-1¼ 2075 (2100-1¼)	2600-1½ 2075 (2100-1½)	2600-3 2075 (2100-3)	
DME MINIMUMS				
CIRCLING	1740-1¼ 1215 (1300-1¼)	1740-1½ 1215 (1300-1½)	1740-3 1215 (1300-3)	1920-3 1395 (1400-3)

NW-1. 03 JUN 2010 to 01 JUL 2010

AIRPORT DIAGRAM

AL-361 (FAA)

SALEM/MCNARY FIELD (SLE)
SALEM, OREGON



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

LOC/DME I-SLE	APP CRS	Rwy ldg 5811
110.3	313°	TDZE 214
Chan 40		Apt Elev 214

ILS or LOC RWY 31

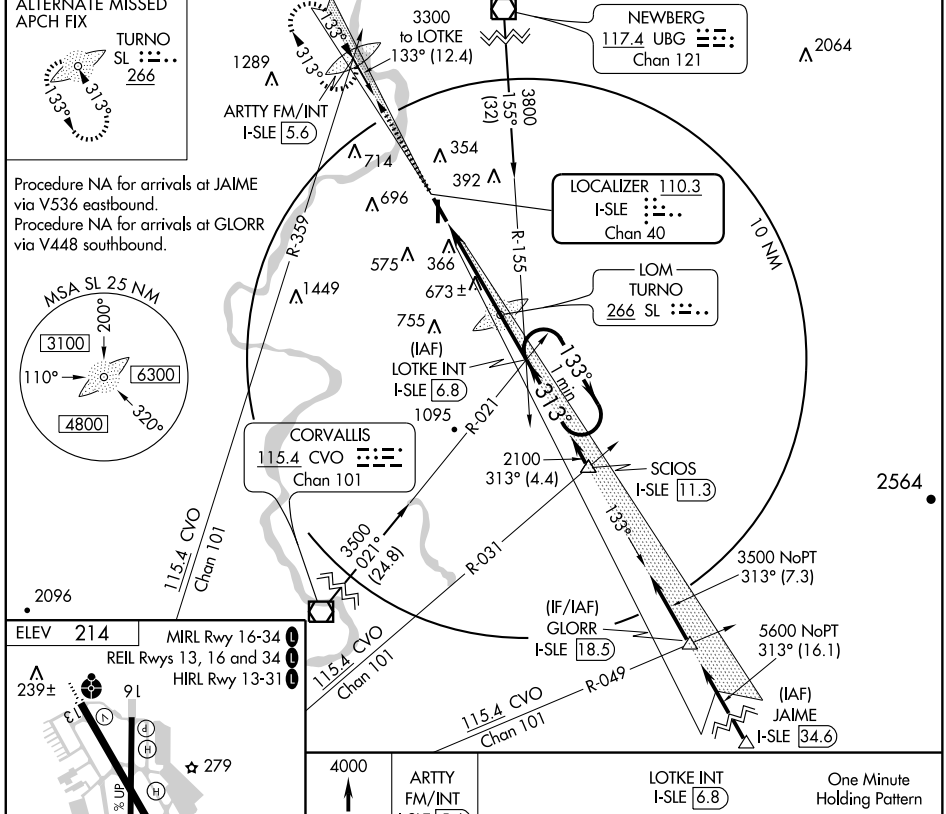
SALEM / MCNARY FIELD (SLE)

T A *RVR 1800 authorized with the use of FD or AP or HUD to DA. When local altimeter setting not received, use Mc Minnville altimeter setting and increase DA 49 feet, and all MDA 60 feet; increase circling Cat D visibility to 2 ¾ miles. VDP NA when using Mc Minnville altimeter setting.

MALSR

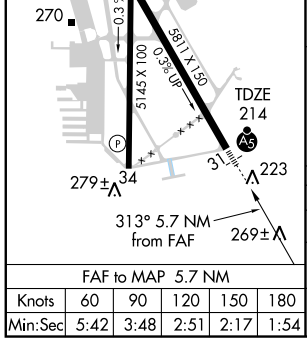
MISSED APPROACH: Climb to 4000 via I-SLE NW course to ARTTY FM/INT/I-SLE 5.6 DME and hold, continue climb-in-hold to 4000.

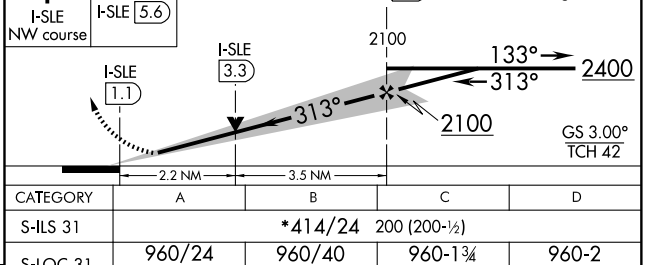
ATIS	SEATTLE CENTER	SALEM TOWER *	GND CON	UNICOM
124.55	125.8 291.7	119.1 (CTAF) L 257.2	121.9	122.95



ELEV 214

MIRL Rwy 16-34 L
REIL Rwys 13, 16 and 34 L
HIRL Rwy 13-31 L





CATEGORY	A	B	C	D
S-ILS 31	*414/24 200 (200-½)			
S-LOC 31	960/24 746 (800-½)	960/40 746 (800-¾)	960-1¾ 746 (800-1¾)	960-2 746 (800-2)
CIRCLING	960-1 746 (800-1)	960-1¼ 746 (800-1¼)	960-2¼ 746 (800-2¼)	1000-2½ 786 (800-2½)

FAF to MAP 5.7 NM

Knots	60	90	120	150	180
Min:Sec	5:42	3:48	2:51	2:17	1:54

NW-1, 03 JUN 2010 to 01 JUL 2010

LOC/DME I-SLE 110.3 Chan 40	APP CRS 133°	Rwy ldg 5811 TDZE 204 Apt Elev 214

LOC BC RWY 13

SALEM / MCNARY FIELD (SLE)

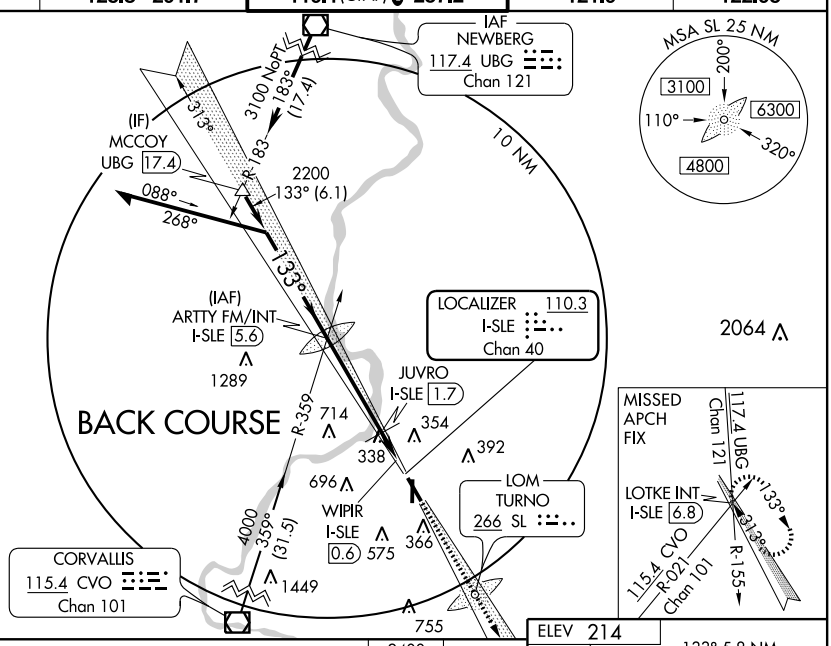
T NA

Inoperative table does not apply to S-13 Cat C or when using McMinnville altimeter setting to S-13 Cat C and JUVRO fix minimums Cat C.
ARTTY INT not authorized for final approach fix.
When local altimeter setting not received, use McMinnville altimeter setting and increase all MDA 60 feet and Cat C and D visibility ¼ mile, for JUVRO fix minimums, increase S-13 Cat C visibility ½ mile, Cat D visibility ¼ mile.

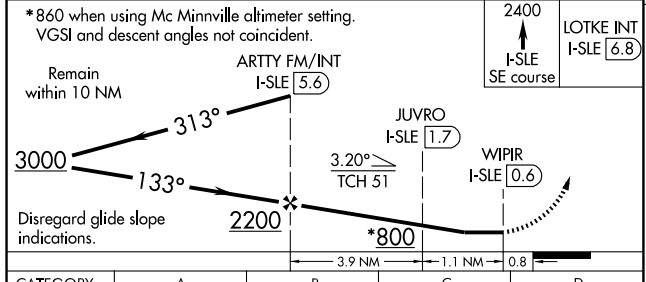
ODALS

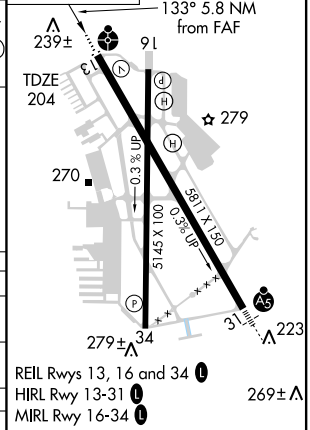
MISSED APPROACH: Climb to 2400 via I-SLE SE course to LOTKE INT/I-SLE 6.8 DME and hold, continue climb-in-hold to 2400.

ATIS	SEATTLE CENTER	SALEM TOWER ★	GND CON	UNICOM
124.55	125.8 291.7	119.1 (CTAF) L 257.2	121.9	122.95



*860 when using Mc Minnville altimeter setting.
VGSI and descent angles not coincident.





REIL Rwys 13, 16 and 34 L
HIRL Rwy 13-31 L
MIRL Rwy 16-34 L

CATEGORY	A	B	C	D
S-13	800-¾ 596 (600-¾)		800-1½ 596 (600-1½)	800-1¾ 596 (600-1¾)
CIRCLING	900-1 686 (700-1)	940-1 726 (800-1)	940-2 726 (800-2)	1000-2½ 786 (800-2½)
JUVRO FIX MINIMUMS				
S-13	600-¾ 396 (400-¾)			600-1¼ 396 (400-1¼)
CIRCLING	900-1 686 (700-1)	940-1 726 (800-1)	940-2 726 (800-2)	1000-2½ 786 (800-2½)

FAF to MAP 5 NM

Knots	60	90	120	150	180
Min:Sec	5:00	3:20	2:30	2:00	1:40

NW-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-SLE 110.3 Chan 40	APP CRS 313°	Rwy ldg 5811 TDZE 214 Apt Elev 214

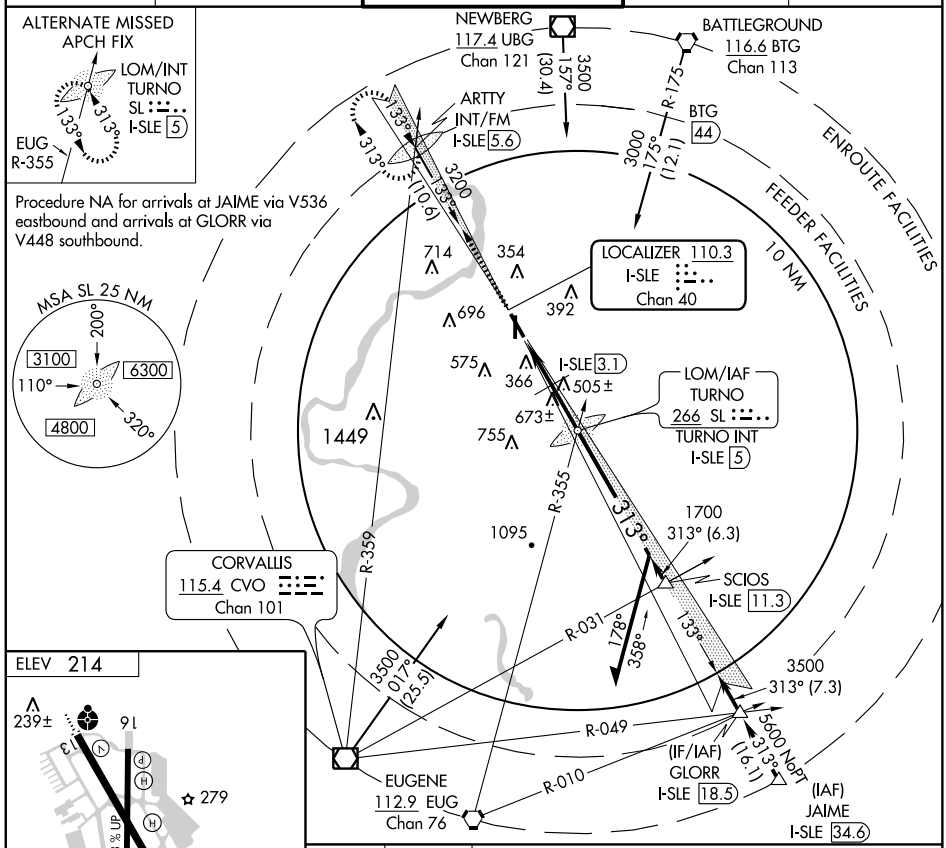
LOC/DME RWY 31

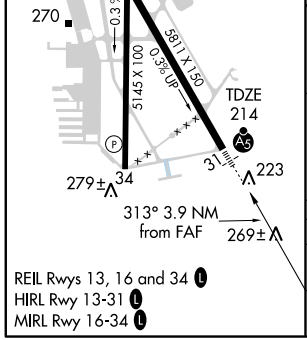
SALEM / MCNARY FIELD (SLE)

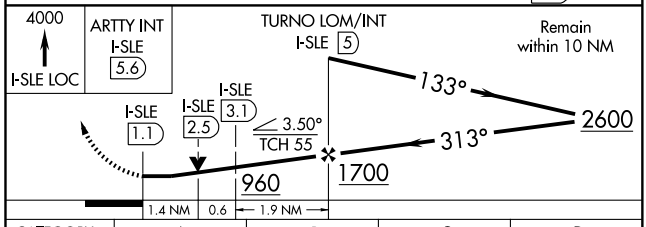
MALSR

MISSED APPROACH: Climb to 4000 via I-SLE LOC northwest course to ARTTY FM/Int/I-SLE 5.6 DME and hold, continue climb-in-hold to 4000.

ATIS	SEATTLE CENTER	SALEM TOWER ★	GND CON	UNICOM
124.55	125.8 291.7	119.1 (CTAF) L 257.2	121.9	122.95







CATEGORY	A	B	C	D
S-31	780/24 566 (600-½)		780/50 566 (600-1)	780/60 566 (600-1¼)
CIRCLING	900-1 686 (700-1)	940-1 726 (800-1)	940-2 726 (800-2)	1000-2½ 786 (800-2½)

REIL Rwys 13, 16 and 34 L
HIRL Rwy 13-31 L
MIRL Rwy 16-34 L

NW-1, 03 JUN 2010 to 01 JUL 2010

WAAS CH 86202 W31A	APP CRS 313°	Rwy ldg 5811 TDZE 214 Apt Elev 214

RNAV (GPS) RWY 31

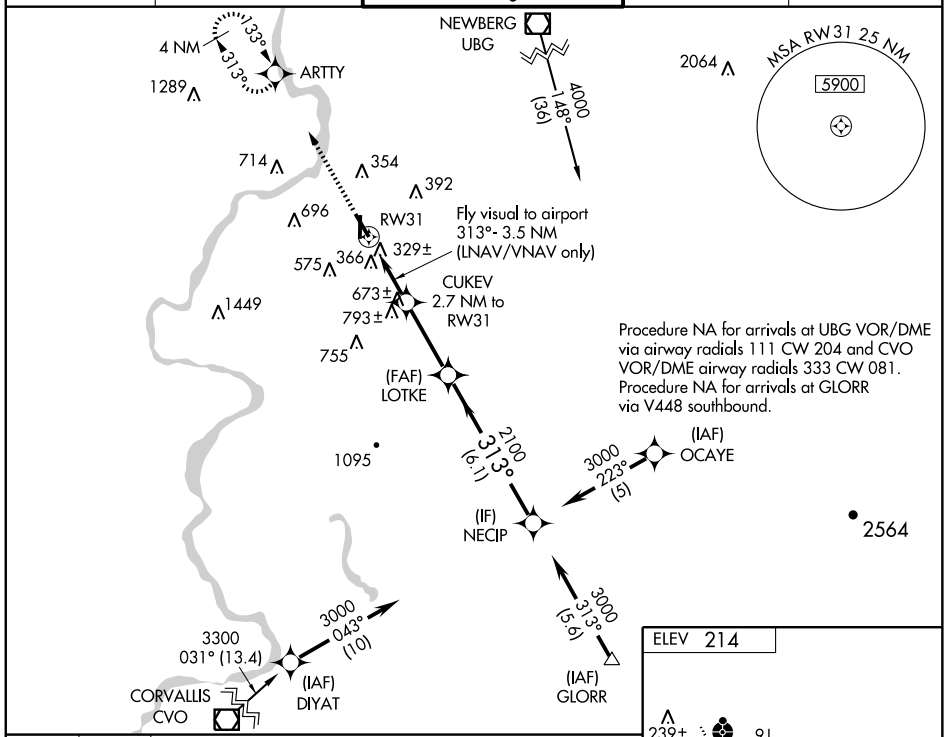
SALEM / MCNARY FIELD (SLE)

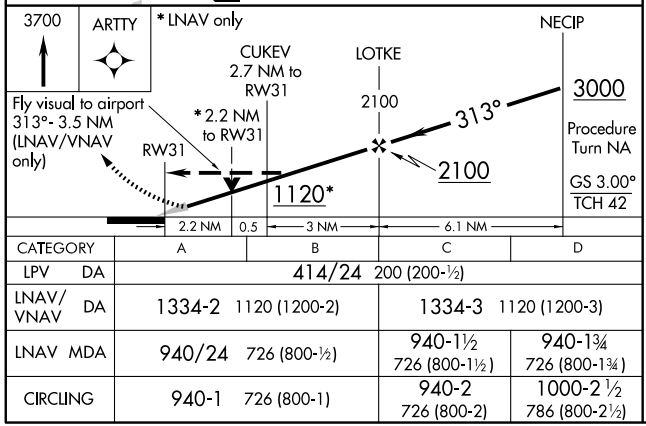
Inoperative table does not apply to LNAV/VNAV. For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15°C (5°F) or above 48°C (118°F). DME/DME RNP-0.3 NA. When local altimeter setting not received, use McMinnville altimeter setting and increase all DA 49 feet; increase all MDA 60 feet and LNAV and circling visibility Cats B/C/D ¼ mile. Baro-VNAV and VDP NA when using McMinnville altimeter setting.

MALSR

MISSED APPROACH: Climb to 3700 direct ARTTY and hold, continue climb-in-hold to 3700.

ATIS	SEATTLE CENTER	SALEM TOWER ★	GND CON	UNICOM
124.55	125.8 291.7	119.1 (CTAF) L 257.2	121.9	122.95





CATEGORY	A	B	C	D
LPV DA	414/24 200 (200-½)			
LNAV/VNAV DA	1334-2 1120 (1200-2)		1334-3 1120 (1200-3)	
LNAV MDA	940/24 726 (800-½)		940-1½ 726 (800-1½)	940-1¾ 726 (800-1¾)
CIRCLING	940-1 726 (800-1)		940-2 726 (800-2)	1000-2½ 786 (800-2½)

NW-1. 03 JUN 2010 to 01 JUL 2010

SALEM TWO DEPARTURE

SL-361 (FAA)

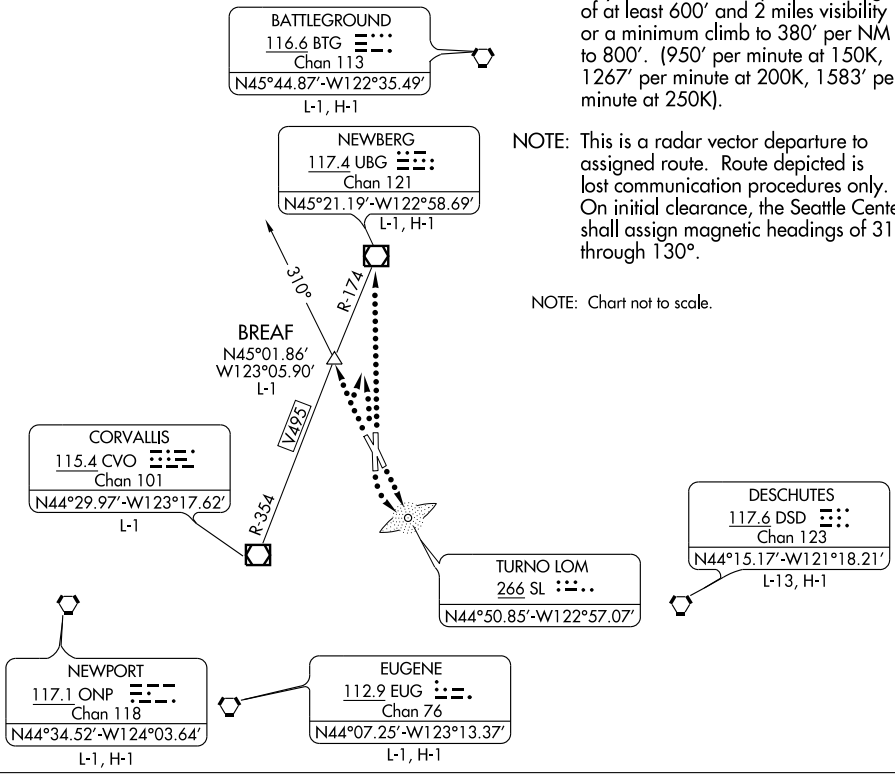
GND CON
121.9
SALEM TOWER ★
119.1 (CTAF) 257.2
SEATTLE CENTER
125.8 291.7

NOTE: Rwy 13-This SID requires a ceiling of at least 600′ and 2 miles visibility, or a minimum climb of 240′ per NM to 800′. (600′ per minute at 150K, 800′ per minute at 200K, 1000′ per minute at 250K).

NOTE: Rwy 16 - This SID requires a ceiling of at least 600′ and 2 miles visibility or a minimum climb to 380′ per NM to 800′. (950′ per minute at 150K, 1267′ per minute at 200K, 1583′ per minute at 250K).

NOTE: This is a radar vector departure to assigned route. Route depicted is lost communication procedures only. On initial clearance, the Seattle Center shall assign magnetic headings of 310° through 130°.

NOTE: Chart not to scale.



DEPARTURE ROUTE DESCRIPTION

Climb via specified turn and heading, contact Seattle Center for vectors to assigned route.

LOST COMMUNICATIONS: If not in contact with Seattle Center after reaching 2000′, continue climb to assigned altitude.

Take-off runways 13 and 16: (Rwy 16 turn left) proceed direct to SL LOM thence via (assigned route).

Take-off runways 31 and 34: (Rwy 31 right turn) proceed direct to UBG VOR/DME thence via (assigned route).

Helicopter only-runways 31 and 34: (Rwy 34 turn left) intercept and proceed outbound on the SL LOM 310° bearing to BREAF INT, thence via (assigned route).

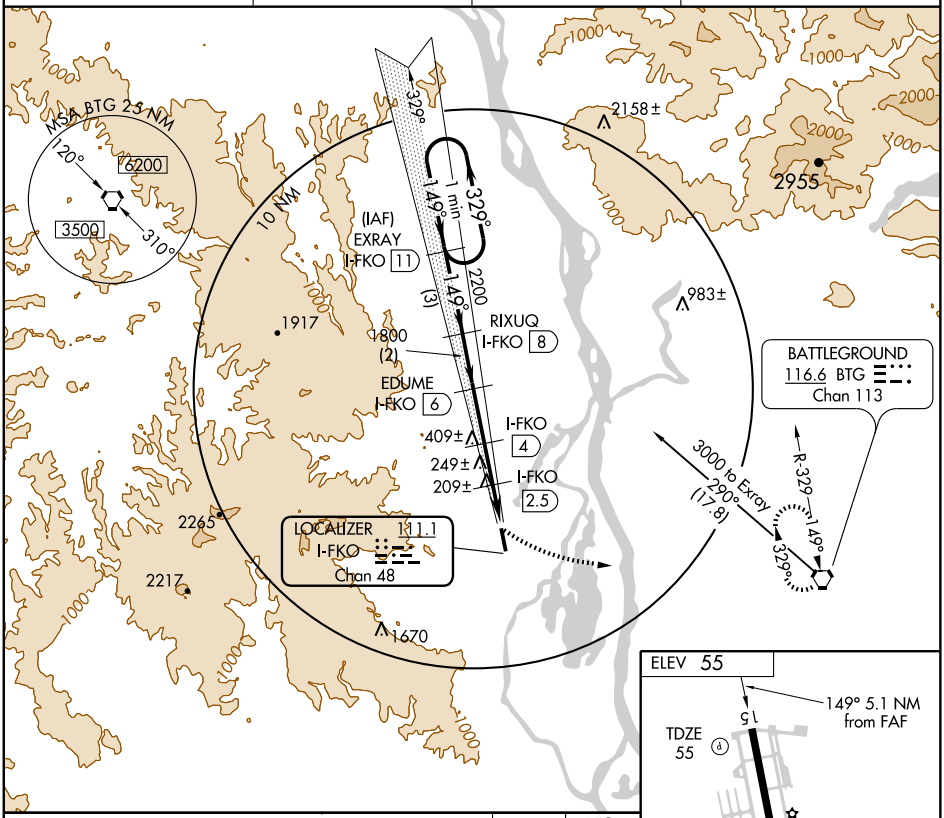
LOC/DME I-FKO	APP CRS	Rwy ldg 5100
111.1	149°	TDZE 55
Chan 48		Apt Elev 55

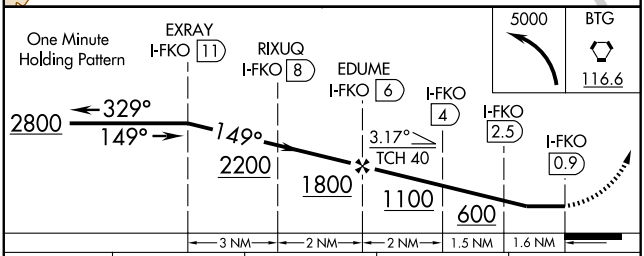
LOC/DME RWY 15
SCAPPOOSE INDUSTRIAL AIRPARK (SPB)

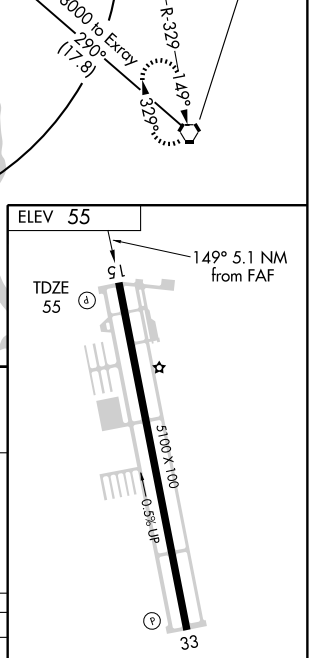
Circling not authorized west of Rwy 15-33.

MISSED APPROACH: Climbing left turn to 5000 direct BTG VORTAC and hold.

ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
135.875	124.35 299.2	121.65	122.8 (CTAF)







CATEGORY	A	B	C	D
S-15	460-1 405 (500-1)		460-1¼ 405 (500-1¼)	
CIRCLING	480-1 425 (500-1)	520-1 465 (500-1)	520-1½ 465 (500-1½)	620-2 565 (600-2)

REIL Rwy 15
MIRL Rwy 15-33

NW-1, 03 JUN 2010 to 01 JUL 2010

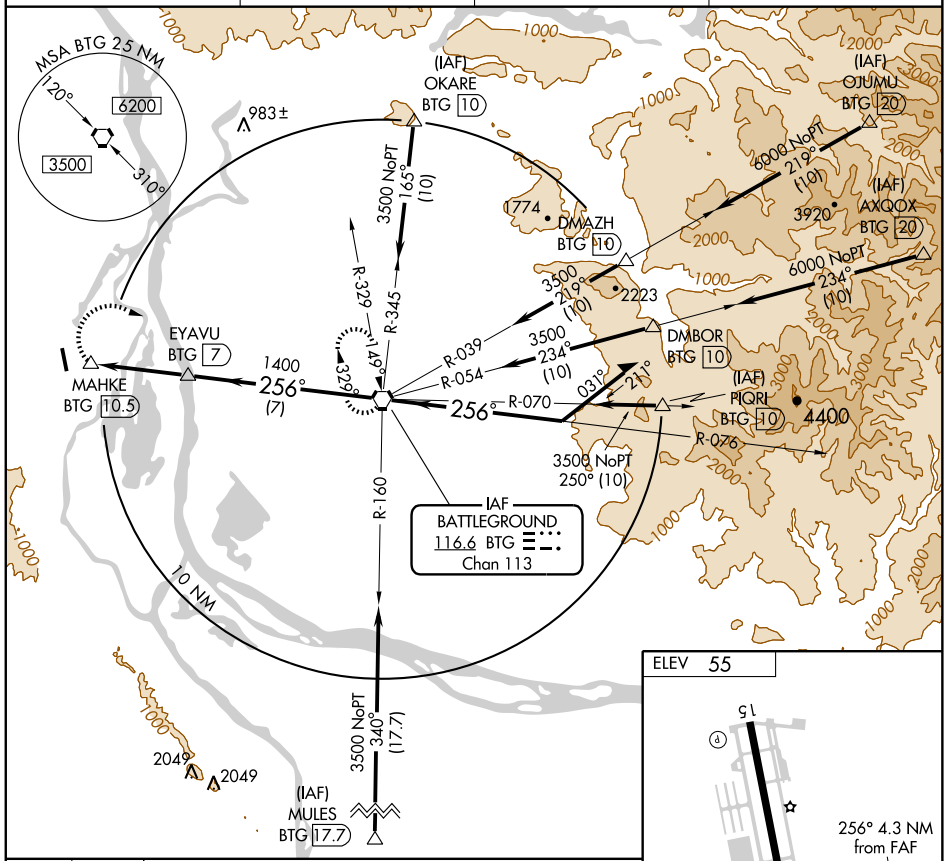
VORTAC BTG	APP CRS	Rwy ldg	N/A
116.6	256°	TDZE	N/A
Chan 113		Apt Elev	55

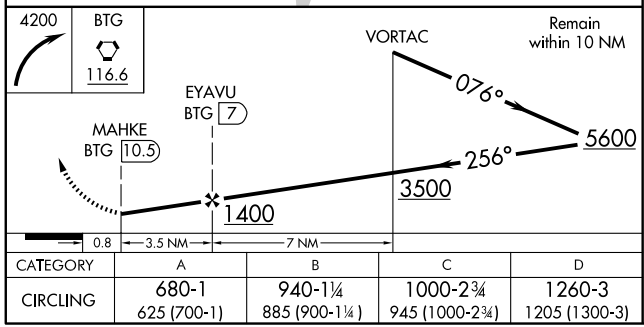
VOR/DME or GPS-A

SCAPPOOSE INDUSTRIAL AIRPARK (SPB)

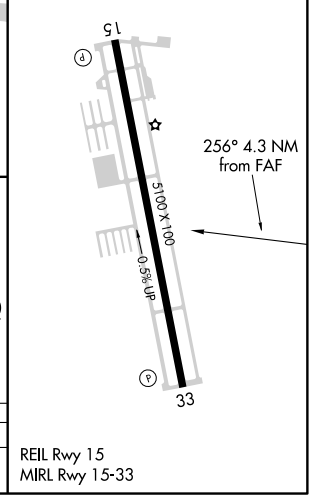
MISSED APPROACH: Climbing right turn to 4200 direct BTG VORTAC and hold.

ASOS	PORTLAND APP CON	CLNC DEL	UNICOM
135.875	124.35 299.2	121.65	122.8 (CTAF)





CATEGORY	A	B	C	D
CIRCLING	680-1 625 (700-1)	940-1¼ 885 (900-1¼)	1000-2¾ 945 (1000-2¾)	1260-3 1205 (1300-3)



NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	4467
178°	TDZE	4162
	Apt Elev	4164

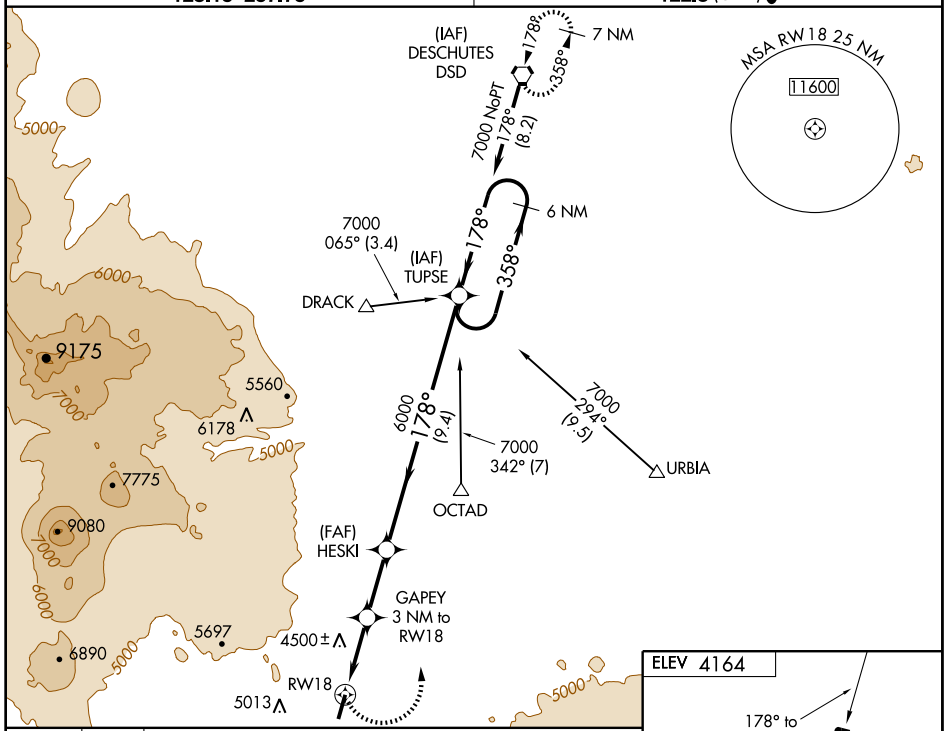
RNAV (GPS) RWY 18
SUNRIVER (S21)

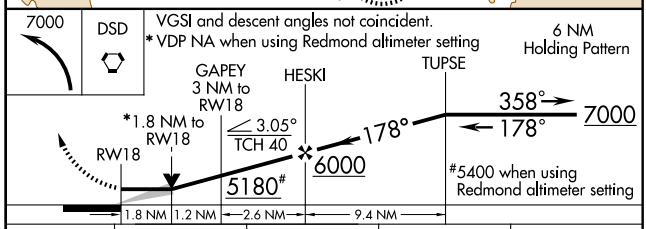
T
A NA

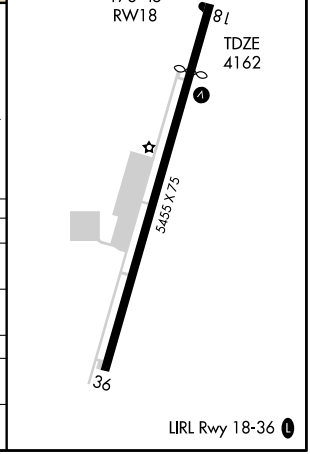
GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
Circling NA at night to Rwy 36.
Obtain local altimeter setting on CTAF; when not received, use Redmond altimeter setting.

MISSED APPROACH: Climbing left turn to 7000 direct DSD VORTAC and hold.

SEATTLE CENTER	UNICOM
128.15 257.75	122.8 (CTAF) L







CATEGORY	A	B	C	D
LNAV MDA	4760-1 598 (600-1)		4760-1½ 598 (600-1½)	4960-2½ 798 (800-2½)
CIRCLING	4920-1 756 (800-1)	4920-1¼ 756 (800-1¼)	5040-2½ 876 (900-2½)	5380-3 1216 (1300-3)
REDMOND ALTIMETER SETTING MINIMUMS				
LNAV MDA	4980-1 818 (900-1)	4980-1¼ 818 (900-1¼)	4980-2½ 818 (900-2½)	4980-2¾ 818 (900-2¾)
CIRCLING	5140-1¼ 976 (1000-1¼)	5140-1½ 976 (1000-1½)	5260-3 1096 (1100-3)	5580-3 1366 (1400-3)

NW-1. 03 JUN 2010 to 01 JUL 2010

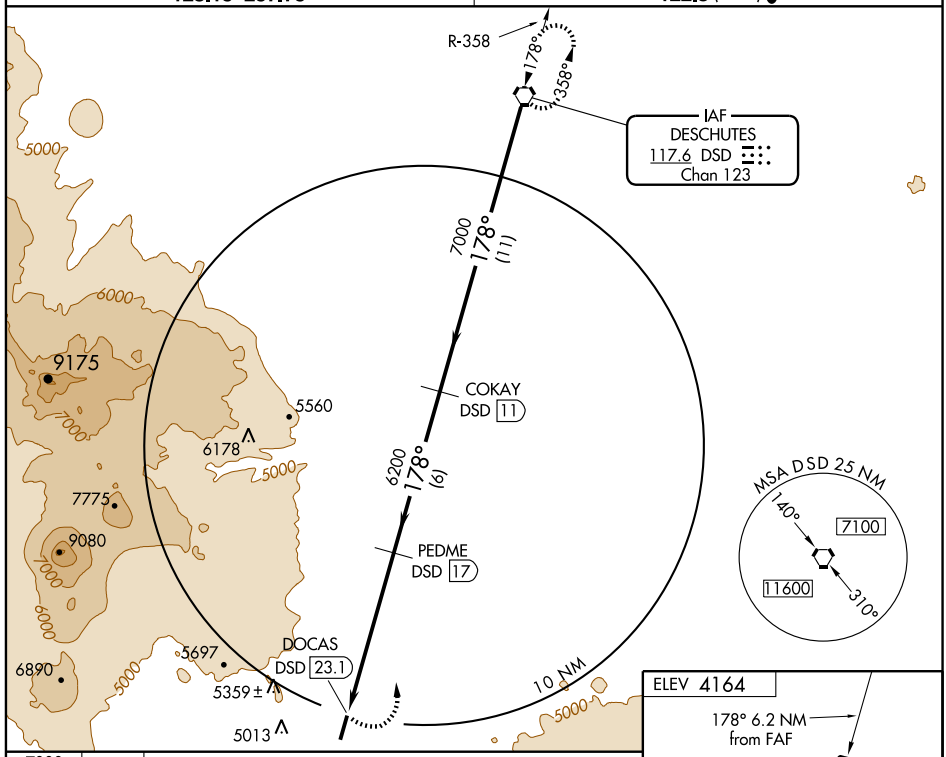
VORTAC DSD 117.6 Chan 123	APP CRS 178°	Rwy ldg 4467 TDZE 4162 Apt Elev 4164

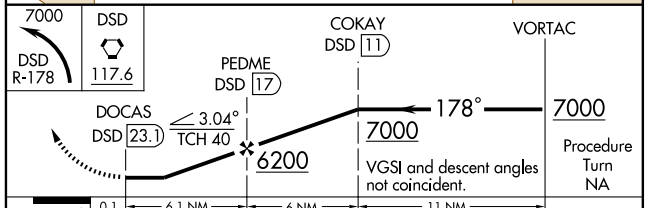
VOR/DME RWY 18
SUNRIVER (S21)

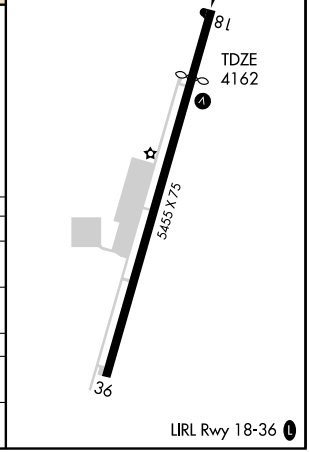
T NA Obtain local altimeter setting on CTAF; when not received, use Redmond altimeter setting. Circling NA at night to Rwy 36.

MISSED APPROACH: Climbing left turn to 7000 via DSD R-178 to DSD VORTAC and hold.

SEATTLE CENTER	UNICOM
128.15 257.75	122.8 (CTAF) L







CATEGORY	A	B	C	D
S-18	5440-1¼ 1278 (1300-1¼)	5440-1½ 1278 (1300-1½)	5440-3 1278 (1300-3)	
CIRCLING	5440-1¼ 1276 (1300-1¼)	5440-1½ 1276 (1300-1½)	5440-3 1276 (1300-3)	
REDMOND ALTIMETER SETTING MINIMUMS				
S-18	5660-1¼ 1498 (1500-1¼)	5660-1½ 1498 (1500-1½)	5660-3 1498 (1500-3)	
CIRCLING	5660-1¼ 1496 (1500-1¼)	5660-1½ 1496 (1500-1½)	5660-3 1496 (1500-3)	

NW-1. 03 JUN 2010 to 01 JUL 2010

LOC/DME I-DLS 109.35 Chan 30 (Y)	APP CRS 234°	Rwy ldg 4451 TDZE 243 Apt Elev 247

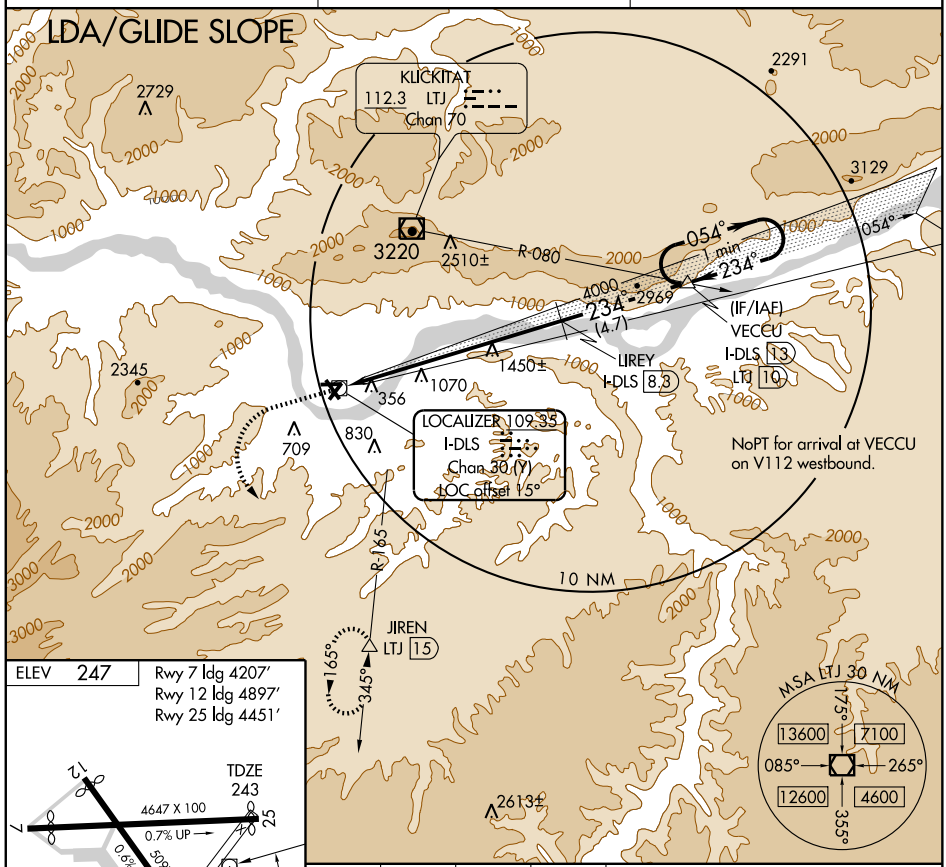
COPTER LDA/DME RWY 25

THE DALLES/COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS)

NA Glide slope provided by standard glide slope equipment. If local altimeter setting not received, procedure NA.

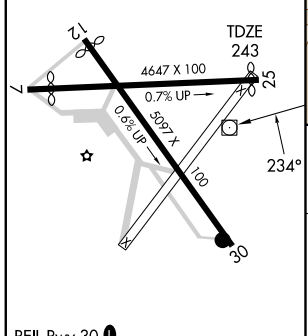
MISSED APPROACH: Climb to 1200 then climbing left turn to 7000 via heading 125° and LTJ VOR/DME R-165 to JIREN/LTJ 15 DME and hold, continue climb-in-hold to 7000.

ASOS	SEATTLE CENTER	UNICOM
135.175	119.65 257.6	123.0 (CTAF) L



ELEV 247

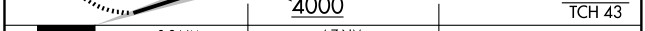
Rwy 7 ldg 4207′
Rwy 12 ldg 4897′
Rwy 25 ldg 4451′



REIL Rwy 30 L
MIRL Rwys 7-25 and 12-30 L

1200	7000 125°	LTJ R-165 112.3	JIREN

Use I-DLS DME when on the localizer course.



Knots	60	90	120	150	180
Min:Sec					

CATEGORY	COPTER	B	C	D
H-LDA/GS 25	783-1½ 540 (600-1½)	NA		

LOC/DME I-DLS 109.35 Chan 30 (Y)	APP CRS 234°	Rwy ldg 4451 TDZE 243 Apt Elev 247

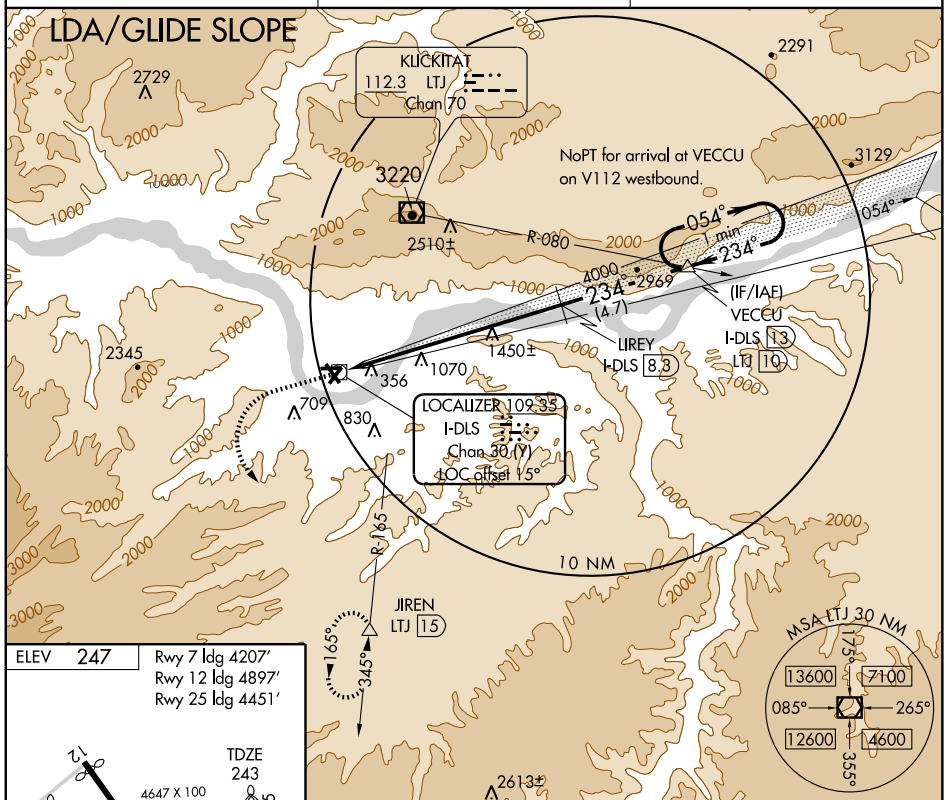
LDA/DME RWY 25

THE DALLES/
COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS)

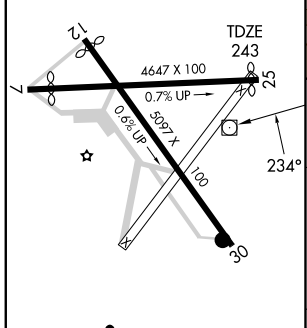
Circling requires descent on GS to MDA.
Glide slope provided by standard glide slope equipment.
Visibility reduction by helicopters NA.
If local altimeter setting not received, procedure NA.

MISSED APPROACH: Climb to 1600 then climbing left turn to 7000 via heading 135° and LTJ VOR/DME R-165 to JIREN/LTJ 15 DME and hold, continue climb-in-hold to 7000.

ASOS	SEATTLE CENTER	UNICOM
135.175	119.65 257.6	123.0 (CTAF) L



ELEV 247	Rwy 7 ldg 4207′ Rwy 12 ldg 4897′ Rwy 25 ldg 4451′

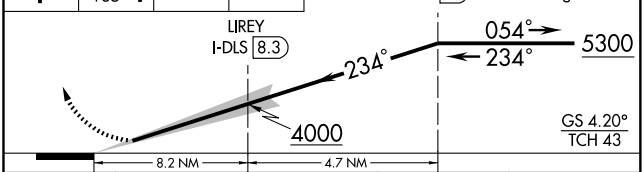


REIL Rwy 30 L
MIRL Rwys 7-25 and 12-30 L

Knots	60	90	120	150	180
Min:Sec					

1600	7000 135°	LTJ R-165 112.3	JIREN

Use I-DLS DME when on the localizer course.



CATEGORY	A	B	C	D
S-LDA/GS 25	1368-2¾	1125 (1200-2¾)	NA	
CIRCLING	1380-3	1133 (1200-3)	NA	

NW-1, 03 JUN 2010 to 01 JUL 2010

APP CRS 335°	Rwy ldg N/A TDZE N/A Apt Elev 247

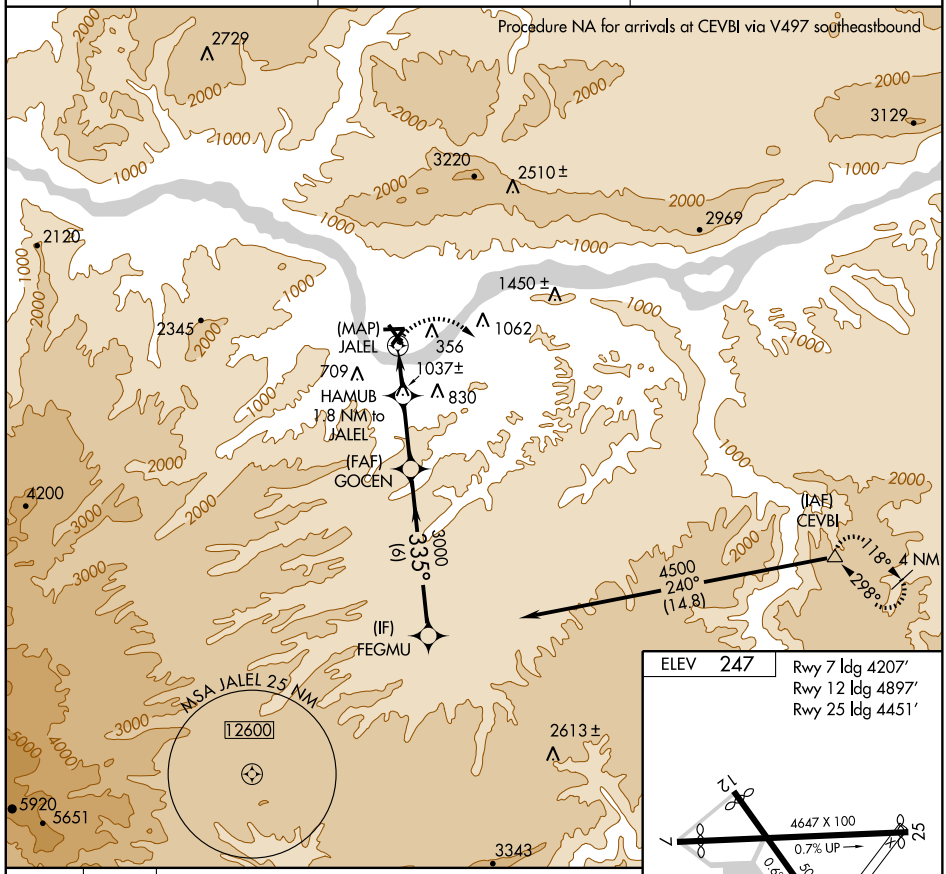
RNAV (GPS)-A

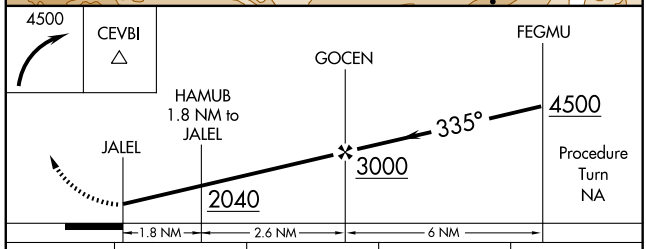
THE DALLES/COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS)

DME/DME RNP-0.3 NA. Circling to Rwy 7 NA at night.
Visibility reduction by helicopters NA.
If local altimeter setting not received, procedure NA.

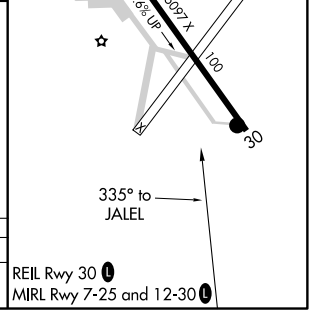
MISSED APPROACH: Climbing right turn to 4500 direct CEVBI and hold.

ASOS	SEATTLE CENTER	UNICOM
135.175	119.65 257.6	123.0 (CTAF) L





CATEGORY	A	B	C	D
CIRCLING	1320-1¼ 1073 (1100-1¼)	1320-1½ 1073 (1100-1½)	1320-3 1073 (1100-3)	1360-3 1113 (1200-3)



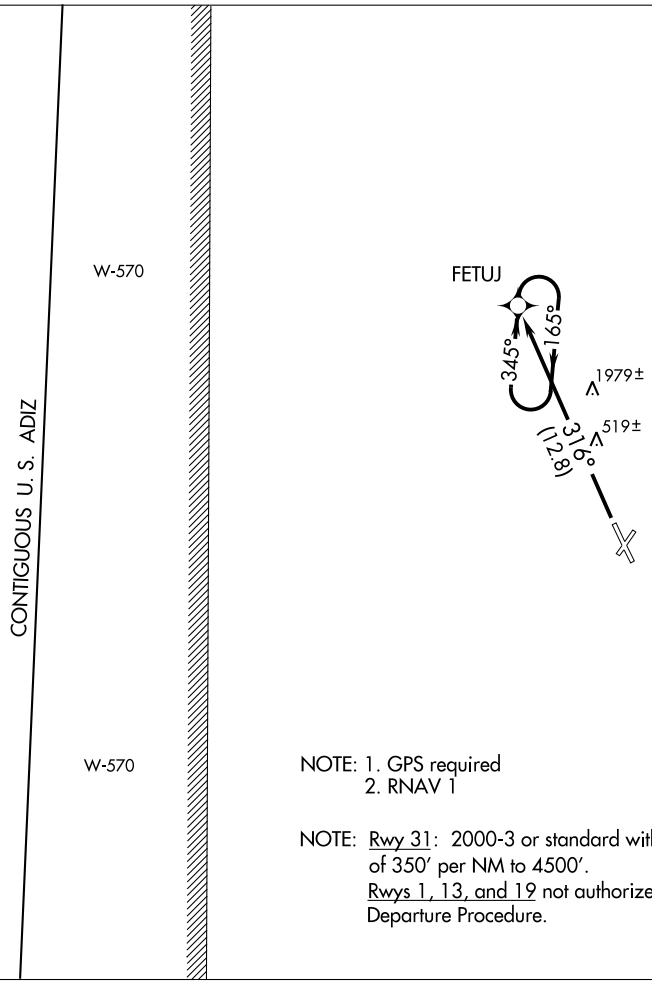
REIL Rwy 30 L
MIRL Rwy 7-25 and 12-30 L

NW-1. 03 JUN 2010 to 01 JUL 2010

FETUJ ONE DEPARTURE (RNAV) (OBSTACLE)

TILLAMOOK (TMK)
TILLAMOOK, OREGON

SEATTLE CENTER
124.2 317.6
McMINNVILLE RADIO
122.45



NOTE: 1. GPS required
2. RNAV 1

NOTE: Rwy 31: 2000-3 or standard with minimum climb of 350′ per NM to 4500′.
Rwys 1, 13, and 19 not authorized for this Departure Procedure.

DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RUNWAY 31: Climb to 5000 via 316° course to FETUJ WP.

Northbound aircraft continue on course to assigned altitude.

Southbound aircraft continue climb in FETUJ WP holding pattern (south, right turn, 345° inbound) to MEA for assigned route before proceeding on course.

NW-1. 03 JUN 2010 to 01 JUL 2010

APP CRS	Rwy ldg	5001
136°	TDZE	28
	Apt Elev	36

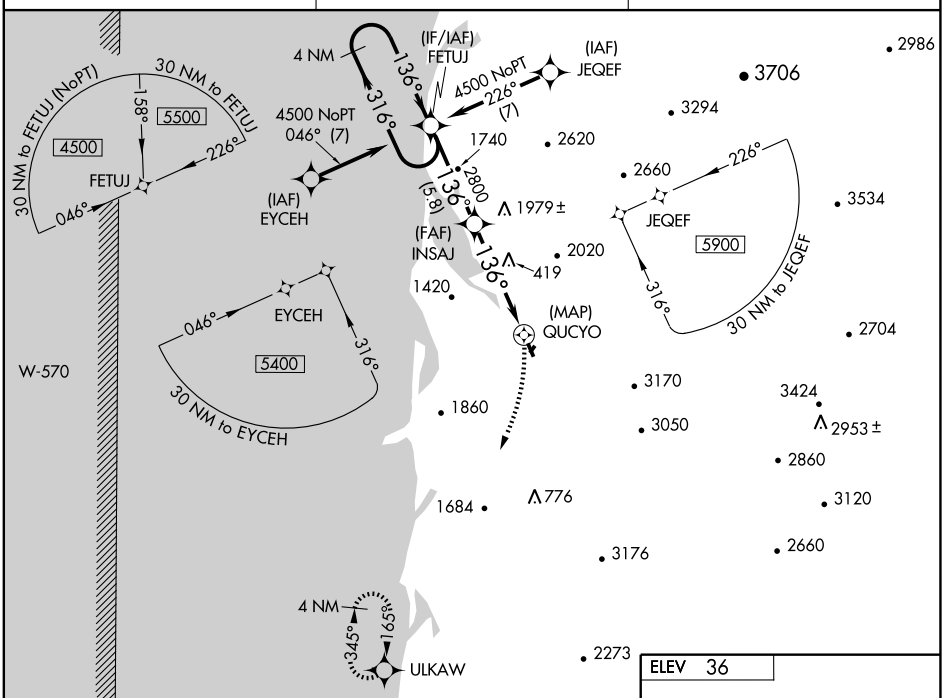
RNAV (GPS) RWY 13

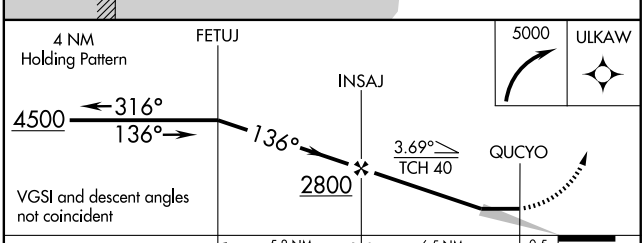
TILLAMOOK (TMK)

When local altimeter setting not received, use Astoria altimeter setting.
NA GPS or RNP- 0.3 required. DME/DME RNP- 0.3 NA.
Circling NA Rwy 1-19 at night.

MISSED APPROACH: Climbing right turn to 5000 direct ULKAW WP and hold.

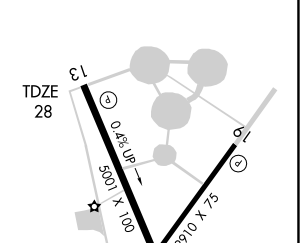
AWOS-3	SEATTLE CENTER	UNICOM
120.0	124.2 317.6	122.8 (CTAF) L





CATEGORY	A	B	C	D
LNAV MDA	760-1 732 (800-1)		760-2 732 (800-2)	NA
CIRCLING	880-1 844 (900-1)	920-1¼ 884 (900-1¼)	920-2¾ 884 (900-2¾)	NA
ASTORIA ALTIMETER SETTING MINIMUMS				
LNAV MDA	1280-1¼ 1252 (1300-1¼)	1280-1½ 1252 (1300-1½)	1280-3 1252 (1300-3)	NA
CIRCLING	1420-1¼ 1384 (1400-1¼)	1460-1½ 1424 (1500-1½)	1460-3 1424 (1500-3)	NA

ELEV 36



REIL Rwy 13
MIRL Rwys 1-19 and 13-31 L